



November 2013

Pholiota Notebook 1

L. R. Hesler

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Tenn-14000

PHOLIOTA

abieticola sp. nov.

Type

Pileus 3-4 cm broad, convex, not fully expanding, dry, appearing glabrous, ochraceous-yellow.

Lamellae pale yellowish, finally brown.

Stipe 3-5 cm x 5-8 mm, clavate-bulbous, dry, concolor.

Cortina white, leaving an evanescent ring.

Spores 7-10 x 4-5 μ , ellipsoid, inequilateral, smooth, pore none. Pleurocystidia none; cheilocystidia 23-31 x 3-6 μ , filamentous to slender-clavate-subcapitate. Gill trama interwoven, hyphae 5-10 μ broad. Pileus trama interwoven. Cuticle dry, of repent hyphae, bearing some epicuticular hyphae. Hypodermium brown, radial-interwoven. Clamps present. Caulocystidia only as slender, clavate, terminal elements on trichodermial hyphae.

PHOLIOTA ADIPOSA (Fr.) Kummer

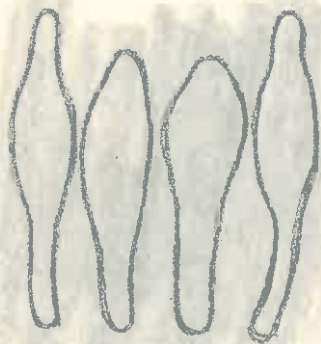
Prencow, SLOVAKIA, Aug. 6, 1891, leg. Andr. Kmet. (Labelled P. subsquarrosa, but changed by Pilát to P. adiposa.)
(On loan from Stockholm).

Spores 5-6 x 3.5-4 μ (Pilát gives same measurements on packet.). Otherwise similar in all essential microscopic characters, including reactions when mounted in KOH and Melzer's, to collection by Stelin, Sweden.

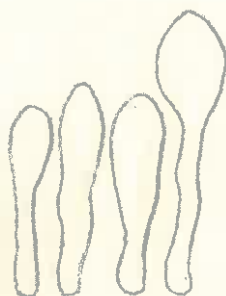
Pholiota adiposa (Fr.) Kummer

(from Ahlner, Stockholm)

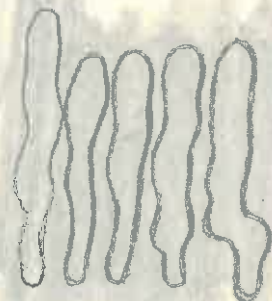
(leg. Hugo Stelin, Oct 13 - '46)



Pl (colorless) - $\times 1000$



Pl (brown)
- $\times 1000$



Ch - $\times 1000$



Spores - $\times 4000$



Caulo - $\times 1000$

PHOLIOTA ADIPOSA (Fr.) Kummer

Södermanland: Valla, SWEDEN, leg. Hugo Stelin, Oct. 13, 1946
(loan from Sten Ahlner Museum Bot. Stockholm), identified by
Pilát.

Spores 5-6 x 3.5-4 μ , ellipsoid in face view, slightly inequilateral in profile, smooth, germ pore present, small. Basidia 26-32 x 5-6 μ , 4-spored. Pleurocystidia (a) brown, more or less buried, numerous, 25-38 x 5-9 μ , clavate; (b) colorless, projecting slightly, scattered to rare, ventricose, at times subfusoid; cheilocystidia 30-38 x 5-6 μ , subclavate, slightly constricted to flexuous, or irregularly shaped, often pale brownish. Gill trama a mediostrate, hyphae parallel to subparallel, hyphae 5-12 μ broad. Subhymenium gelatinous. Pileus trama interwoven. Cuticle a gelatinous zone, hyphae brownish, 2.5-4 μ broad. Hypodermium a reddish brown zone (in KOH). Clamp connections present. Caulocystidia 27-50 x 5-7 μ , clavate, brownish. Pileus and gill trama yellowish brown in KOH; reddish brown in Melzer's reagent. Epicuticular hyphae (veil remnants?) on stipe, above ring, brown, narrow, incrustated.

This collection was originally identified as P. aurivella Batsch by Stelin; Pilát changed the identification to "adiposa".

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(On loan from Stockholm).

Spores 5-6 x 3.5-4 μ (Pilát gives same measurements on packet.). Otherwise similar in all essential microscopic characters, including reactions when mounted in KOH and Melzer's, to collection by Stelin, Sweden.

PHOLIOTA ADIPOSA (Fr.)

Near Amersham, England, leg. A.Flockinger, Oct. 19, 1964.
(Collection borrowed from Kew, Aug. 1965)

Spores 5-6(7) x 3-4(4.2) μ , ellipsoid or slightly ovoid in face view, some slightly inequilateral in profile, smooth, germ-pore not evident. Basidia 18-22 x 4-5 μ , 4-spored. Pleurocystidia: (1) brown, clavate, buried, 30-35 x 6-9 μ , (2) colorless, 28-40 x 6-7 μ , fusoid, projecting only slightly; cheilocystidia: (1) brown, 20-34 x 7-11 μ , clavate, (2) colorless, 17-37 x 5-9 μ , cylindric-clavate and irregular, or fusoid to subclavate and mucronate. Gill trama a mediostrate, hyphae subparallel, 4-8 μ broad, flanked by a gelatinous subhymenium. Pileus trama radial. Cuticle a gelatinous zone, resting on a brown hypodermium. Clamps present. Caulocystidia 30-48 x 7-12 μ , more or less scattered or grouped, ventricose to clavate, colorless or pale brown.

Stipe cuticle shows a gelatinous zone in many (not all) sections.

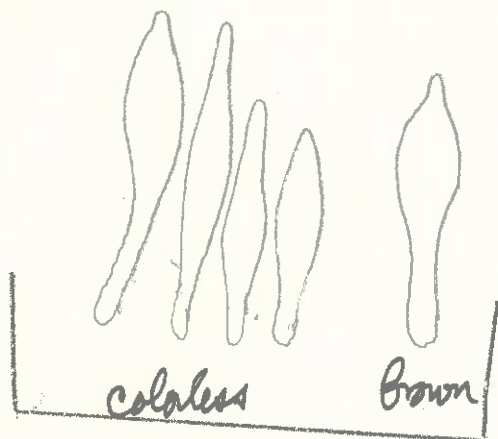
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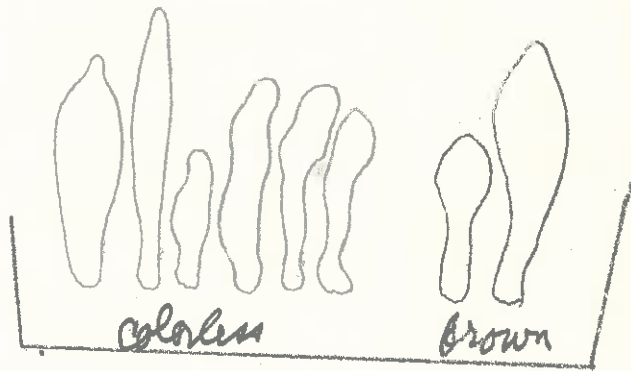
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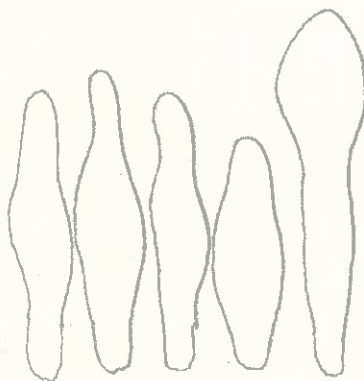
Pholista adiposa (Fr.)
from New, England, leg. A. Hocking
Oct 19 - '64



Pl - x 1000



Ch - x 1000



Caules - x 1000

Contributio II ad monographiam Agaricinorum brasiliensium ⁽¹⁾

AUCTORE J. RICK

Agarici tropicales hucusque pauci collecti sunt, tum propter difficultatem determinationis, tum propter ephemeram existentiam eorum, tum propter impossibilitatem conservationis.

Si ipse auctor et pater hujus disciplinae, clarissimus Fries, in proemio sui libri (Hym. Europaei) difficultatem qua laborabat explicite memorat, quid dicendum de nobis in tanta variabilitate formarum hujus terrae constitutis? Verum quidem est silvas brasilienses non eam afferre quantitatem Agaricinorum quam regiones Europaeae, ita ut haec stirps in Brasilia minus copiosa videatur. Cum in Europa duobus mensibus Septembri et Novembri, omnis fere vegetatio Agaricinorum absolvatur, hic per saltem quatuor menses, a Martio ad Augustum, extenditur eorum praesentia.

Ex altera parte, non tam gregatim, sed potius solitarii apparent, suntque plerumque species minores et vulgares, et ideo minus notantur.

Ut ex elencho colligitur, maior pars sunt species Europaeae et cosmopolitae, quamvis aliquando differentias aliquas secundarias exhibeant. Saepe enim certo cognoscit mycologus esse aliquam formam ex grege hujus vel illius speciei, quamvis notis aliquibus differat. Novas species paucas solum descripsi notis clare distinctis, aliis multis futurae et diligentiori inquisitioni reservatis.

Cum generatim impossibile sit Agaricum exsiccatum dignoscere, hujus opusculi valor et veracitas solum in ipso loco ubi collectiones factae sunt dijudicari poterit. Propterea omnes species ex una silva collegi, quae, quum ad Collegii (Parecy Novo) possessiones pertineat, conservabitur. Generatim silvae brasilienses colonorum opere facile destruuntur, quod iis non accidit quae a familiis religiosis possidentur.

Usus sum generatim Friesii operibus et tabulis Cookei (quae, pro dolor, saepe erroneae). Sporarum mensura desumpta est ex fungo vivo, hinc saepius major quam exsiccata praebent.

(¹) Cf. Bröteria, Serie Botanica, vol. vi, 1905, p. 65-92.

Lepiotarum numerus est ingens, praecipue minorum, sed ne errores multiplicentur ab earum determinatione saepe dubia abstinui. Amanitae et Armillariae paucae inveniuntur. Praeter species a me prius editas, alias non inveni. Tricholomata quoque videntur rara.

Auctores omisi, cum eos Friesius indicet.

Tricholoma

Tricholoma nudum. Sporae 6/3. Ad terram.

Tricholoma fucatum. Ad terram.

Color est canus; versus marginem in sulphureum vergit. Hinc varietas.

Tricholoma resplendens. Spora sphaerica 3 μ . Ad terram.

Exsiccando nigrescit. Maculis hyalinis optime distinguitur.

Tricholoma personatum. Ad terram.

Tricholoma sulphurellum Rick nov. sp.

Statura *Trich. sulphurei*; pileo albo-sulphureo, sericello; lamellis subdistantibus, ventricosis, solidis, emerginato-adnexis, albis; stipite solido, albo, fibrilloso, versus pileum albo-pruinoso. Spora 6/3.

Ad gregem *Tr. sulphurei* pertinet. Solitarius ad terram.

Clitocybe

Clitocybe amara. Spora 6/5. Ad terram. Stipite inferius albo-lanoso.

Clitocybe vibecina. Spora 5/4. Ad terram.

Differt a *Cl. ditopus* lamellis distantibus; odor farinas recentis.

Clitocybe cyathiformis. Spora 5/3. In ramis. Habet lamellas

subconfertas; caeterum stipite fibroso-reticulato; ad hanc speciem certo spectat.

Clitocybe pithyophila. Spora $5/2$. Inter acus pinorum.

Clitocybe laccata. Spora 10μ rugulosa. In pascuis.

Color constanter ruber. Hinc forma: *Agaricus rebellus* Batsch.

Clitocybe ditopus. Ad terram. Lamellis confertis. Odor farinae recentis.

Clitocybe metachroa. Spora $5/6$. Ad terram, inter folia.

Clitocybe phyllophila. Inter folia. Est similis *Cl. pithyophilae* sed stipite fibroso et lamellis subdistantibus.

Clitocybe fumosa. Spora $6/3$. Ad terram. Pileo primitus firmo, convexo, cartilagineo, griseo-livido, sericeo, dein laevi, in margine albescente leviter et pulchre sulcato; lamellis bifurcatis, planis, confertis, albis, aequaliter decurrentibus; stipite albo, solido, 5 mm. lato, inferius albo-lanato.

Miror marginem pulchre sulcis pictum, ut apud Cook. III. 948, non esse observatum a Friesio. Lamellae post exsiccationem non lividae sed isabellinae. Hinc certe varietas tropicalis. Pertinet ad disciformes.

Clitocybe Queletti. Spora $6/3$. In ramo; odor gravis farinae. Squamis fuscis ornatur.

Clitocybe nauseosa Rick nov. sp.

Pileo pusillo, 1 cm. lato, plano-depresso, carnosulo, griseo, fuligineo-setuloso; lamellis inaequalibus, subdistantibus, decurrentibus, ex griseo stramineis, angustis; stipite fibroso, griseo, albo-consperso; sporis albis, $3/2$.

Odor tandem foetidus et nauseosus. Foetet sicut nonnulli Hymenopteri.

Collybia

Collybia sericea Rick nov. sp.

Statura *Collybiae dryophilae*; pileo nitido, sericeo-fibrilloso cano; stipite glabro, albo-lutescente; lamellis liberis, confertis albis, angustis, acie laceris. Spora $7/3$. Est forma *Coll. dryophilae*.

Collybia radicata. Spora sphaerica, aspera, 13μ .; glutinosa; ad terram.

Collybia longipes. Spora ut in praecedente; ad terram.

Collybia aquosa. Inter acus pinorum.

Collybia confluens. Inter folia.

Collybia conigena. Spora $9/3$; inter acus.

Collybia misera. Spora $6/4$; inter folia.

Collybia leucophaeata. Ad terram, inter folia. Fracta primum caerulescit, deinde nigrescit.

Collybia ventricosa. Spora $8/4$; apiculo obtuso lateraliter producto. Stipes basi lutescens, bulbosus, in radicellam productus.

Collybia coracina. Spora $5/2 \frac{1}{3}$. Inter folia. Odor farinae rancidae. Pileo non striato; lamellis olivaceis. Locum occupat inter *Coll. coracinam* et *Coll. ozes*.

Mycena

Mycena tenerrima. Spora $8/6$. Ad frustula ligni.

Mycena plumbea. Spora $5/3$. In ramo. Stipite potius villosulo; pileo pruina alba consperso.

Mycena dissiliens. Spora 8-10/5, apiculata.

Mycena plicato-crenata. Spora 4/7. Inter muscos. Lamellis angustis, cinereis; habitu *Psathyrellae*.

Mycena flavo-alba. Inter acus pinorum.

Mycena luteo-alba. In ramo.

Mycena pura. Ad terram. Variabilissima.

Mycena condiscipula. Berk. Fasciculata. An diversa a *Mycena laevigata*?

Mycena sulphureo-conspersa Rick nov. sp.

Filipes; pileo 1/2 cm. lato, campanulato, membranaceo, griseo, crenato-plicato, umbone obscuriore, pellucido, granulis sulphureis consperso; stipite filiformi, pellucido, leviter crinito, basi incrassata crinita, tenaci; lamellis planis, distantibus, griseo-albis, inaequalibus. Spora 10/3-4, lageniformis. Inter folia.

Distinguitur ab aliis pruina sulphurea.

Mycena lactea. Ad terram. Mycelio arachnoideo.

Mycena gypsea. Spora 8/9. Ad terram.

Omphalia

Omphalia campanella. Spora 6/3. Ad terram.

Omphalia hydrogramma. Mycelio albo-stratoso. Inter acus pinorum.

Omphalia Fibula. Inter muscos.

Omphalia citrinella. In ramo.

Omphalia leucophylla. Inter folia.

Omphalia byssiseda Bres. In truncis gregaria. bysso amplo albo insidens.

Volvaria

Volvaria pusilla. Ad terram nudam.

Volvaria fibrillosa Bres. Ad truncos putridos.

Pluteus

Pluteus nanus. Spora rotunda, 4 μ , lutescens. In trunco et ad terram.

Pluteus hispidulus. In ramo.

Pluteus eximius. In serragine; glutinosus.

Pluteus umbrosus. Inter folia.

Entoloma

Entoloma ardosiacum. Spora rugosa. Ad terram.

Entoloma helodes. Ad terram. Pileo isabellino-olivaceo, margine violascente; stipite griseo-violaceo. Sporis rugosis. Odor gravis farinae recentis.

Entoloma nidorosum. Ad terram.

Nolanea

Nolanea mammosa. Ad terram.

Leptonia

Leptonia chalybea. Spora valde verrucosa 8/10; lamellis acie dilutioribus; ad terram, inter folia.

Leptonia euchroa. Sporis valde rugosis 6/7.

Leptonia solstitialis. Sporis angulatis, 3 μ . Ad frustula.

Leptonia formosa. Ad terram; frequens.

Leptonia anatina. Spora angulata, 10 μ . Ad terram; stipite fibroso; lamellis albidis; habitu *Mycenae*.

Leptonia Linkii. Spora valde verrucosa, 8/6; pileo atro-papillato.

Leptonia rosea Rick nov. sp.

Pusilla, vix 5 mm. lata, primitus stipite et pileo rosea; pileo dein expallescente, umbone brunneo et rugoso; lamellis roseis, dilutioribus quam pileus, subdistantibus, ventricosis, inaequalibus, adnexis. Sporis fusiformibus, utrinque acutis, 10-12, roseis. Ad terram, inter folia.

Leptonia straminea Rick nov. sp.

Pileo 3-10 mm. lato, membranaceo, fusco-stramineo griseo consperso, substriato; stipite filiformi, concolore, griseo-consperso, maxime circa pileum, pede fere nudo; lamellis fusco-stramineis, acie serratis, subdistantibus, inaequalibus, non ventricosis, stipiti adnexis. Sporis 5-7/3-4, copiosis, angulatis. Inter folia.

Leptonia albo-serrulata Rick nov. sp.

Ex grege *serrulatae*. Sicut *L. serrulata* sed stipite nudo, inferius albo-lanata; lamellis albis, acie serratis, umbone pilei nigro-papillato. Spora angulata 10 μ .

Leptonia olivacea Rick nov. sp.

Pileo solido, subcarnoso, 1 cm. lato, convexo, toto sulphureo-olivaceo, non striato, sicco; stipite 1,5 cm. alto, 2 mm. lato, in orbem album dilatato, inferius et superius albo, compresso, inferius solido; lamellis olivaceis, confertis, inaequalibus, dente adnexis. Spora dilute carnea, angulato-compressa, minor. Ad ramos.

Leptonia fuligineo-straminea Rick nov. sp.

Pileo 1 cm. lato, parum depresso, submembranaceo-fragili, violaceo-fuligineo; stipite tenui, fusco, sericeo, tenaci; lamellis confertis, angustis, inaequalibus, stramineis, dente adnexis. Spora irregulariter ovata, $3/4$. Inter folia, solitarius.

Pholiota

Pholiota pusilla Rick nov. sp.

Pusillus, 6 mm. latus, membranaceus, sordide albus; stipite 1 cm. alto, albo-pruinoso; lamellis mediis adnexis aut liberis, pileo obscurioribus; velo persistente; sporis elongato-ovalibus, flavidulis, uno latere compressis, $6/3$. Sapor farinae. Ad terram.

Pholiota Cookei. Ad terram.

Pholiota blattaria. Ad terram.

Pholiota rosea Rick nov. sp.

Pileo carnosulo, 1 cm. lato, expanso, roseo, squamoso, striatulo; lamellis secedente-liberis, rotundatis, subventricosis, confertis, acie albis ceterum obscurioribus; stipite delicato, fibroso, brunneo, albo-lanoso, annulo persistente. Sporis brunneis, $4/2$, uno latere compressis. Ad terram.

Inocybe

Inocybe megalospora Rick nov. sp.

Pileo 1 cm. lato, campanulato, carnosulo, striato, umbonato, fragili, cinereo-fuligineo, innato squamoso; stipite filiformi

cinammomeo, squamoso, inferius hispido; lamellis latis, distantibus, inaequalibus, cinereis, tactu atris, crassis; sporis coloratis, angulato-verrucosis, $15/10$. In ramis et inter folia.

Habitu *Mycenae*, color olivaceus, olivaceo-viridis, cinereus, cinammomeus, etc. Stipes saepius fere nudus.

Inocybe scabella. Sporis rugosis. Ad terram.

Flammula

Flammula sapinea. Spora $8/4$, guttulata. In trunco.

Flammula Tavernii. Spora sphaerica, 6μ , rugulosa. Ad terram.

Flammula piecea. In pino.

Naucoria

Naucoria badipes. Spora ovalis aut lanceolata, $7/3-4$.

Naucoria adstrusa. Ad terram.

Naucoria anguinea. Spora $6/3$; versus terram ad truncum.

Varietas: Stipite albo-squamoso. Spora $8/4$.

Galera

Galera lateritia. Spora $9/5$ apiculata, guttulata. Ad terram.

Galera spartea. Spora $10/5$. In ligno.

Galera Rabenhorstii. Spora $7-8/4-6$. Stipite albo, striato. In ramo.

Galera spicula. Spora $12/5$. Stipite albo-pruinoso. Inter folia.

Psalliota

Psalliota comtula. Spora 5/4. In terra. Stipes et pileus sericeus.

Psalliota silvicola. Ad terram. Stipes cum bulbo marginato.

Psalliota haemorrhoidaria var. *straminea*.

Pileo 1 dcm. crasso, carne alba, tactu sanguinea, odore anissi, albo-stramineo, squamis innatis tecto; stipite 1 dcm. alto, subtus 1,5 cm. lato, stramineo-squamoso fibroso, cavo, a lamellis libero; lamellis ventricosis, confertissimis, fuligineis, arescendo atris, fere aequalibus, liberis, a pilei carne facile secedentibus, annulo pendente, lacero et fugace; carne molli, spongiosa, sapore nullo, odore anisii. Spora atropurpurea, 5/3. In trunco cavo. Facile nova species.

Hypholoma

Hypholoma fasciculare. Ad terram.

Coprinus

Coprini fere omnes vulgati Europei adsunt; hinc enumerare superfluum duxi. Ex *Cortinariis* vero hucusque nullum inveni.

Hygrophorus

Hygrophorus miniatus. Ad terram. Altus.

Hygrophorus chlorophaeus. Ad terram.

Hygrophorus coccineus. Ad terram. Viscidus, pumilus.

Hygrophorus pratensis. Ad terram, 6/4. Flavescens.

Hygrophorus virgineus. Ad terram.

Panus

Panus torulosus. Ad terram.

Schizophyllum

Schizophyllum album Rick nov. sp.

Pileo mesopodio, firmo, 1 cm. lato, carnos-resistente, albo-lanoso; stipite 2 cm. longo, radicante, albo-lanoso, superius dilatato, inferius lutescente; lamellis decurrentibus, margine junctis, varie anastomosantibus, interius cavis, dilute albis, mediis subdistantibus; sporis albis oblongis. Sapore et odore nullo. Ad terram nudam.

Lactarium inveni unum, quem edidi sub nomine «*Lactarius Russula*», sed forsitan est *L. trivialis*. Aliam speciem inveni habitu *Mycenae*, quae habet lamellas lactescentes, excepto pileo et stipite. Est ergo inter *Lactarium genuinum* et *Mycenam intermediam*, sed ulterius observanda est.

Russulam quoque inveni unam: *R. pectinatum*; *Cantharellum* hucusque nullum, *Craterellum* unum, *Pilosace* unam.



Tenn-18040

PHOLIOTA ALBOCRENULATA Pk.

On log, Greenbrier, The Park, coll. Hugh Iltis, Oct. 5, 1947

Pileus 2-2.5 cm broad, viscid.

Spores 10-14 x 5.5-7 μ , subfusoid, sublimoniform, smooth,
germ-pore present. ^{24-35 x 6-8 μ , clavate-mucronate, rare} Pleurocystidia ~~same~~; cheilocystidia 36-54 x
4-8 μ , filamentous to clavate-cylindric. Gill trama subparallel,
hyphae 4-7 μ broad. Pileus trama interwoven. Cuticle a thick
gelatinous zone. Clamp connections present.

Tenn-20501

PHOLIOTA ALBOCRENULATA Pk.

On rotten maple trunk, A.J. Sharp, Indian Creek, Aug. 9, 1952

Pleurocytidia clavate-acute, rare;

Spores 11-14 x 5.5-6.5 μ . \wedge Cheilocystidia 35-78 x 3-6 μ ,
filamentous. Other characters usual.

albo-divaricans sp. nov.

Tenn-20814

PHOLIOTA (KUEHNEROMYCES)

PHOTO

On frondose logs and chips, Cades Cove, May 16, 1953

Fyfe

Pileus (1)2-3(5) cm broad, convex, expanding, at times wavy, ~~pink~~ viscid, hygrophanous, white when dry, "isabella color" when wet, drying from disc outward, surface appearing glabrous but appressed silky and plush-like under lens, margin even when dry, striate when wet. Context rather fragile, thin, white, darker when wet; odor and taste mild.

Lamellae adnate to adnate-decurrent, at first white, then "dresden brown," finally "snuff brown," medium broad, close, reaching margin of pileus, edges white denticulate.

Stipe 3-5 cm x 2-4 mm, whitish, dingy in age, dry, silky, striate, equal, usually curved, spongy then hollow. Veil delicate, webby, white, forming an apical, persistent to subfugaceous annulus, often brownish from spores.

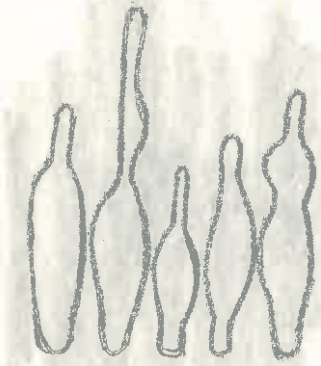
Spores (5.5)6-9 x 3.8-4.5 μ , ellipsoid to ovoid in face view, slightly inequilateral in profile, smooth, truncate, germ-pore present, color in deposit "snuff brown." Basidia 25-28 x 5-6 μ , 4-spored. Pleurocystidia 24-46 x 6-8 μ , clavate to ventricose, appendiculate; cheilocystidia 30-37 x 4-6 μ , obclavate, fusoid, often irregular-wavy, sometimes subcapitate. Gill trama subparallel, short-celled, hyphae 5-10 μ broad. Pileus trama radial. Cuticle of repent, radially-disposed hyphae, appearing cellular in tangential sections, surface zone, 30-40 μ broad, gelatinous. Clamp connections none.

Caulocystidia 42-60 x 3-8 μ , in tufts, crooked to irregularly slender flask-shaped or subventricose, often septate below!

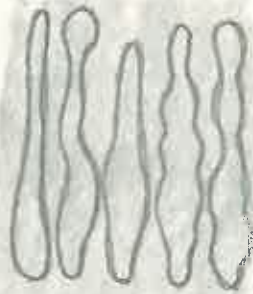
Pholiota albo-olivascens sp. nov.
(*Kuehneromyces*)

Type

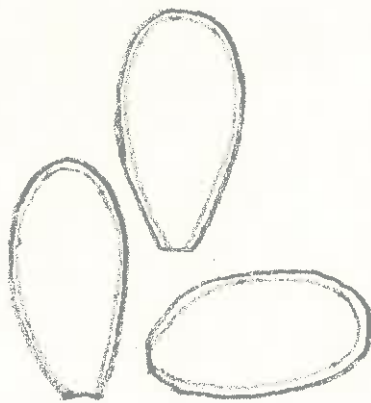
Tenn - 20814



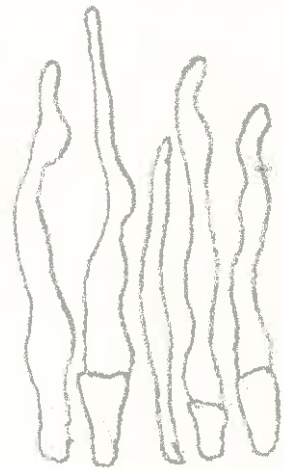
Pl - x 1000



Ch - x 1000



Spores - x 4000



Caulo - x 1000

albovirescens sp. nov.

Tenn-10399

PHOLIOTA ~~OCHROCHLORA (Fr.) Ostry~~

On tulip log, Elkmont, June 8, 1937

(cf. Tenn-9431)

Pileus caespitose, 1.2-3.0 cm, convex becoming somewhat expanded, often obtusely umbonate, dry, ~~not~~ ^{slightly} hygrophanous, silky, pale yellowish, with ferruginous stains, margin usually with a greenish tinge (a rather definite zone), margin even. Context white; no odor, taste bitter.

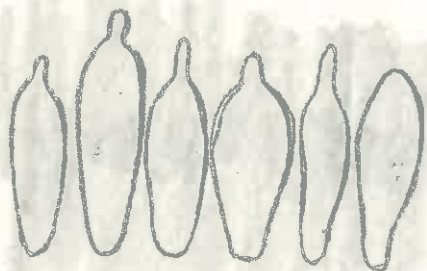
Lamellae whitish, becoming greenish-olive, narrow, close, adnate, with a decurrent tooth.

Stipe 3.5-5.0 cm x 3-5 mm, often compressed, hollow, dry, silky, equal or attenuated upwards, straw color, base rusty, flexuose. Cortina white, fibrillose, often leaving a faint ring on stipe, and fragments on margin of pileus.

Spores 6-7.5 x 3.5-4 μ , ellipsoid to subovoid in face view, slightly inequilateral in profile, smooth, truncate, germ-pore present. Basidia 16-20 x 5-6 μ , 2-4-spored. Pleurocystidia 25-32 x 6-11 μ , clavate-mucronate or appendiculate, more rarely merely clavate; cheilocystidia 22-25 x 5-7 μ , clavate to subventricose. Gill trama subparallel, hyphae 3-6 μ broad. Pileus trama radial. Cuticle radial, but more or less "cellular" as seen in tangential sections. Clamp connections present. Pileus and gill trama yellowish brown in KOH; brown in Melzer's reagent.

Pholista albobrassicens, sp. nov.
~~*schroederi* (Fr.)~~

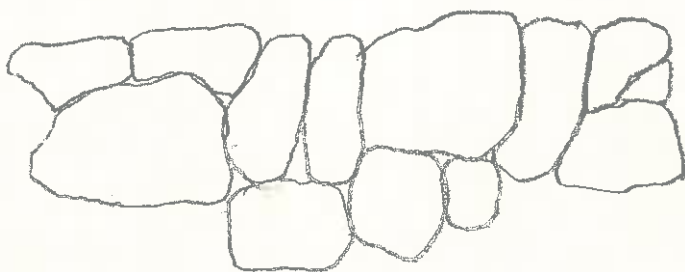
Term-10399



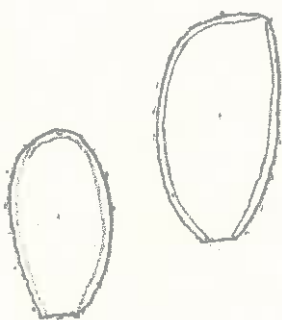
Pl - x 1000



Ch - x 1000



Cuticle (radially-disposed) -
end-view of hyphae in
tangential section - x 1000



Spores - x 14000



28185

PHOLIOTA ALBOVIRESCENS SP. NOV.

Pileus caespitose, 0.8-3 cm broad, convex, becoming more or less expanded, often obtusely umbonate, dry or subhygrophanous, silky, center "Naples yellow" tinged greenish, marginal half "sea-foam green", with ferruginous stains, margin even, at times appendiculate. Context whitish or more or less concolorous; odor mild, taste bitter.

Lamellae adnate, with a decurrent tooth, at first whitish, becoming "citron-green" to "olive-green", "brownish where bruised, finally brownish from the spores, very crowded, narrow.

Stipe (1) 3-5 cm long, 2-5 mm thick, more or less concolorous with the pileus, or straw-color, base rusty, often compressed, flexuous, equal or attenuated upwards, silty, dry, hollow. Veil white, arachnoid, often leaving a faint ring, and fragments on the pileus-margin.

Spores 5.5-7.5 x 3.5-4(4.5) μ , ellipsoid to subovoid in face view, slightly inequilateral in profile, smooth, truncate. Basidia 16-20 x 5-6 μ , 2-4-spored. Pleurocystidia (16) 25-32 x 6-11 μ , clavate-mucronate or appendiculate, rarely merely clavate, sometimes brownish, buried; cheilocystidia 18-25 x 3-7 μ , clavate to subventricose, or flask-shaped. Gill trama subparallel, hyphae 3-6 μ broad. Subhymenium not distinctive. Pileus trama radial-interwoven. Cuticle of repent hyphae, more or less radially disposed. ^{Hypodermium not differentiated. Caulocystidia none.} Clamp connections present. [^] Pileus and gill trama yellowish brown in KOH, brownish in Melzer's reagent.

HABIT, HABITAT, AND DISTRIBUTION - On logs and buried wood (hardwood), Tennessee, June - August.

MATERIAL STUDIED - TENNESSEE: Hesler 10399, 28185 (type, on buried wood, near Gatlinburg, GSMNP, August 12, 1965).

OBSERVATIONS - The color-pattern suggested *P. ochrochlora* (Fr.) P. D. Orton, but this latter species has scales on the pileus-center and on the stipe, the gills are at first straw-yellow, the taste mild, pleurocystidia absent; and Orton in his description (1960) says nothing about the spores being truncate. *Pholiota ochrochlora* would appear to ^{be} an *Hemipholiota*; *P. albiverescens* is a *Kuehneromyces*.

28185

alborvirescens sp. nov.
PHOLIOTA ~~ECHROCHLORA~~ (Fr.)

Type

On buried timbers, Jungle Brook, near LeConte, Aug. 12, 1965

Pileus 8-20 mm broad, central portion "Naples yellow" and tinted green, marginal half "sea-foam green", subhygrophanous, minutely silky. Context more or less concolorous; odor mild, taste bitter.

Lamellae "citron green", becoming brown where bruised, narrow, crowded.

Stipe 1-2 cm x 2-3 mm, concolorous, base darker.

Spores 5.5-7.5 x 3.5-4.5 μ , ovoid, inequilateral, more or less truncate, smooth. Pleurocystidia 16-25 x 6-8 μ , cylindric or clavate, or at times mucronate, more or less brownish, buried; cheilocystidia 18-25 x 3-6 μ , cylindric, clavate, or flask-shaped. Pileus trama interwoven. Cuticle of repent hyphae.

Tenn-25482

PHOLIOTA ALNICOLA (Fr.) Singer

(from Netherlands)

Around old stump of Quercus, Parish Frogn, leg. & det.
R.A. Maas Geesteranus, No. 13741, Sept. 10, 1961

Notes by Maas Geesteranus

Pileus up to 45 mm diam., convex, then plane, with involute or drooping margin, without or with distinct umbo, glabrous, smooth, viscid, shining, chrome yellow to straw yellow, more or less densely spotted with red-brown blotches radiating from centre outwards. Context sulphureous in pileus and apex of stipe, yellow-brown further down, orange-brown in base of stipe.

Lamellae emarginate, decurrent with tooth, crowded, thin, broad, concolorous with pileus, brown-spotted.

Stipe 80-130 x 4-12 mm, curved, firm, fibrillose, silky, covered with loose fibrils, concolorous with pileus at apex, dingy fulvous downwards, orange-brown at the base.

Notes by Hesler

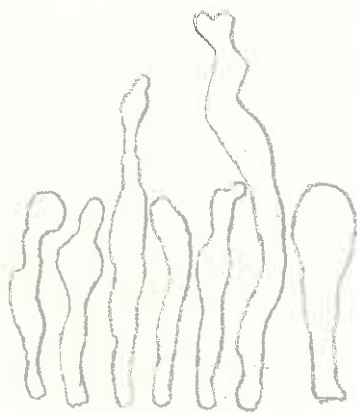
Spores 8-10 x 4-5.5 μ , ellipsoid in face view, inequilateral in profile, smooth, germ-pore minute. Basidia 26-30 x 5-6 μ , 4-spored. Pleurocystidia ~~34-38 x 6-7 μ , ventricose, projecting somewhat;~~ ^{none;} cheilocystidia 27-50 x 4-~~8~~ ⁸ μ , ~~irregularly~~ ^{often irregular,} cylindric-clavate, flexuous, apices subcapitate or appendiculate, rarely slightly forked. Gill trama slightly interwoven, hyphae 5-8 μ broad. Pileus trama interwoven. Cuticle a gelatinous zone, hyphae brownish, resting on a brownish hypodermium. Clamp connections present. Caulocystidia present, 30-43 x 4-5 μ , similar to cheilocystidia. Pileus and gill trama rather dark yellowish brown in KOH; reddish brown in Melzer's reagent.

Pholiota alnicola

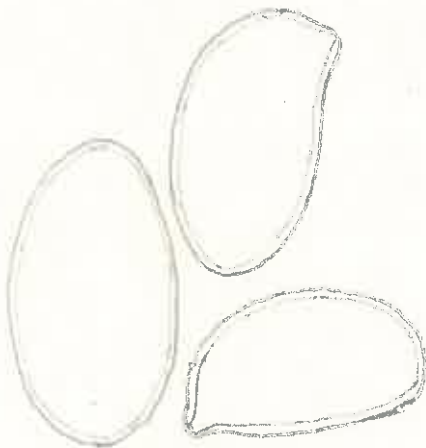
Terre-25482
(from Geesteranus, Holland)



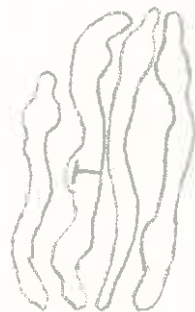
~~Pl - x 1000~~



Ch - x 1000



Spores - x 4000



Caulo - x 1000

PHOLIOTA ANOMALA Pk.

Leg. William Herbst, Pennsylvania, October (from The Peck Herb. Label in Peck's handwriting).

Spores globose, 4-5 μ diameter, slightly rough.

This is not a Pholiota. It might be a Tubaria.

But, Harding (1952) lists it as Ripartites anomala (Pk.)
comb. nov.; he has seen the type.

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comb. nov.; he has seen the type.

Tenn-19298

PHOLIOTA ASTRAGALINA (Fr.) Singer

Base of decaying spruce, Indian Gap, N.C., GSMNP, Aug. 27, 1949

Pileus 2.5-4.5 cm broad, hemispheric, finally convex-expanded, obtusely umbonate, hygrophanous, viscid, "ochraceous-salmon," "ochraceous-orange," "zinc orange" to "cadmium orange," glabrous except with innate fibrils ^{and marginal veil-remnants,} toward margin sparsely striate. Context thin, orange-tinted, reddish in 15% KOH; odor mild, taste bitter.

Lamellae rounded-adnate, then emarginate, with a decurrent tooth, seceding, "Naples yellow" when young, finally "buckthorn brown," close, medium broad to broad, broadest behind, narrowed in front, edges paler, fimbriate.

Stipe 4-11 cm x 4-6 mm, pale orange to dingy, dry, fibrillose, with scattered scales, stuffed to hollow, base often curved. Veil white, evanescent, leaving a slight webby, fugaceous annulus.

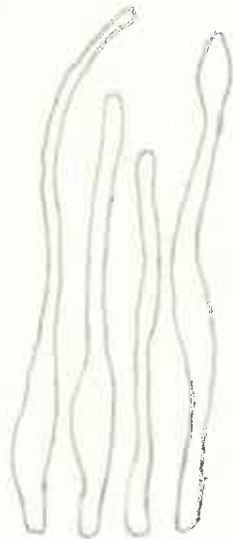
Spores 5-6(7) x 3.5-4(4.5) μ , ellipsoid in face view, inequilateral in profile, smooth, germ pore present. Basidia 22-28 x 5-6 μ , 2-4-spored. Pleurocystidia 37-53 x 6-12 μ , lageniform or slender ventricose with a short or long neck; some with brown contents, stalk buried in subhymenium or trama, up to 76 μ long, a few clavate-blunt; cheilocystidia filamentous, or slightly enlarged at base or middle, more rarely also with large (45 x 13 μ), brown, clavate cheilocystidia; filamentous type often extending up the sides of the gills (up to 150 μ or more). Gill trama subparallel, hyphae 8-20 μ broad. Pileus trama interwoven. Cuticle a gelatinous zone; hypodermium not differentiated. Clamp connections present.

Pholiota astragalina

Tenn - 19298



Pl-colorata - x 1000



Ch-usual
x 1000



Ch-unusual
brown, x 1000



Pl-brown - x 1000

Tenn-19715

PHOLIOTA ASTRAGALINA (Fr.) Sing. PHOTO
(same as 19298)

At base, spruce woods, Indian Gap, August 27, 1950

Pileus 2.5-4.5 cm broad, hemispheric, finally convex-expanded, obtusely umbonate, viscid, hygrophanous, disc "ochraceous salmon," "zinc orange" to "cadmium orange" (dry), marginally half "light ochraceous orange," often blackening at maturity, disc glabrescent, margin fibrillose (veil remnants), spuriously striate. Context orange-yellow, reddish brown in KOH, firm; odor mild, taste bitter.

Lamellae adnate to emarginate, with a decurrent tooth, seceding, at first "naples yellow;" finally "buckthorn brown," edges at first fimbriate then merely eroded, close, broad.

Stipe 4-11 cm x 4-6 mm, fibrillose, dry dingy, curved, stuffed then hollow. Veil white, fibrillose.

Spores 5.5-6(7) x 3.5-4(4.5) μ , ellipsoidal, smooth, pale brown under microscope, spore print failed.

Other characters as in Tenn-19298.

Appearance somewhat suggestive of Hypholoma sublateritium.

Call. by Duss,
1

FLAMMULA AUREO VIRIDIS Pat.

= *Pholiota*
(*Kuehneromyces*)

No. 816, on decayed wood, Camp Jacob, Guadeloupe, Farlow Herb.

Type

Spores 6-8.5 x (3.5)4-4.5 μ , ellipsoid to subovoid, inequilateral in profile, smooth, truncate (germ pore large), brownish in KOH, yellowish brown in Melzer's reagent. Basidia unsuitable for study. Pleurocystidia and cheilocystidia none found. Gill trama subparallel, hyphae 3-5 μ broad; subhymenium not distinctive. Pileus trama radial. Cuticle of brown, repent hyphae; no pilocystidia. Caulocystidia none. Clamp connections present.

This is a Pholiota (Kuehneromyces).

FLAMMULA AUREOVIRIDIS Pat.

In Duss, Enum. Champ. Guad., p.55. 1903

Gymnopilus aureoviridis (Pat.) Murr., Mycologia 5:19. 1913

Pileus 15 mm broad, convex, umbilicate, glabrous, yellowish orange to greenish.

Lamellae adnate, reddish brown, crowded, narrow.

Stipe 4-7 cm long, 1 mm thick, central, greenish yellow, cylindric, flexuous, fibrillose.

Spores 6-8.5 x (3.5)4-4.5 μ , ellipsoid to subovoid, inequilateral in profile, smooth, truncate (germ pore large), brownish in KOH, yellowish brown in Melzer's reagent. Basidia unsuitable for study. Pleurocystidia and cheilocystidia none found. Gill trama subparallel, hyphae 3-5 μ broad. Subhymenium not distinctive. Pileus trama radial. Cuticle of brown, repent hyphae; no pilocystidia. Caulocystidia none. Clamp connections present.

This is a Pholiota (Kuehneromyces).

HABIT, HABITAT, AND DISTRIBUTION - On decayed wood, Guadaloupe.

MATERIAL STUDIED - GUADALOUPE - Patouillard, No. 816, collected by Duss, Camp Jacob (FH).

OBSERVATIONS - Neither pleurocystidia nor cheilocystidia were found in the material studied. Otherwise, this is a Pholiota.

Tenn-9538

PHOLIOTA AURIVELLA (Fr.) Kummer

Spores 6.5-8 x 4-5 μ , ellipsoid in face view, often faintly truncate, pore present (minute), smooth. Basidia 22-26 x 5-7 μ , 4-spored. Pleurocystidia (a) colorless, 26-30 x 5-7 μ , scattered, subfusoid to subventricose; (b) brown, 23-34 x 4-7 μ , clavate, subcylindric and apices pointed or mucronate, buried, scattered; cheilocystidia 26-35 x 5-7 μ , slender-ventricose or slender-ellipsoid, numerous. Gill trama parallel or subparallel, hyphae 4-7 μ broad. Pileus trama interwoven. Cuticle gelatinous, with brown tufts or mounds (repent scales). Clamp connections present.

I was uncertain as to whether the stipe was viscid. The repent scales on cap and spore-size suggest aurivella rather than adiposa.

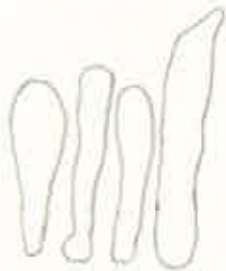
Tholista aurivella

Term - 9538

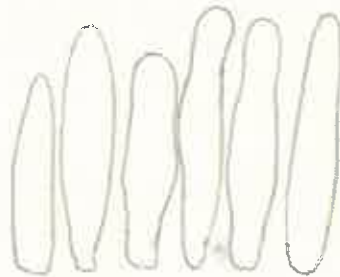


Th. colubus

- x 1000



Th. brown



Ch - x 1000

Tenn-10274 PHOLIOTA AURIVELLA (Batsch ex Fr.) Kummer

Glen Major, Ontario, leg. G.S. Bell, det. G.S. Bell (as P. adiposa),
Oct. 25, 1936

Spores 7.5-10 x 4-5 μ . Otherwise as in Sm-68774
(from Josserand).

Tenn-12508

PHOLIOTA AURIVELLA (Fr.) Kummer

On elm, more or less 7 ft. above ground, on trunk, Knoxville,
Oct. 23, 1939

Pileus 5-11 cm broad, scaly, viscid.

Lamellae yellowish then brown, close, medium broad.

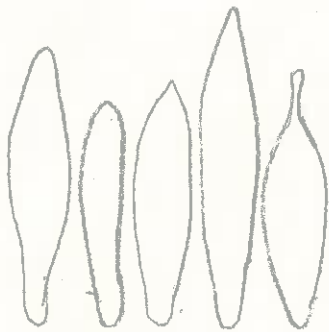
Stipe 6-14 cm x 6-15 mm, scaly, scales more or less recurved.

Spores 7-8.5(9) x 4-5 μ , ellipsoid to subvoid in face view, slightly inequilateral in profile, smooth, germ-pore present. Basidia 23-29 x 5-7 μ , (2)4-spored. Pleurocystidia (a) colorless, 30-43 x 6-9 μ , fusoid-ventricose, apices more or less acute; more rarely short-appendiculate, scattered, (b) brown, 34-45 x 7-10 μ , imbedded, scattered, clavate; cheilocystidia 28-45 x 5-7 μ , ventricose to sub-bottle-shaped. Gill trama a mediostrate, hyphae subparallel, 5-10 μ broad, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone. Clamp connections present. Caulocystidia 33-68 x 5-8 μ , more or less clavate, in small tufts. Brown lactifers abundant in trama of pileus and gills.

The spore size places this in P. aurivella sensu Lange, K. & R., and Moser. I named it P. adiposa, and A. H. Smith agreed; but spores too large for that species.

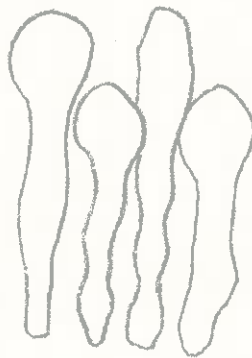
Pholiota aurivella

Tenn-12508

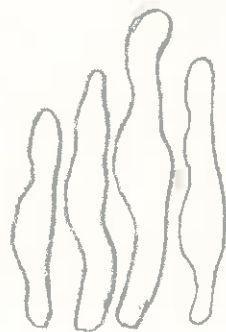


(a) colorless

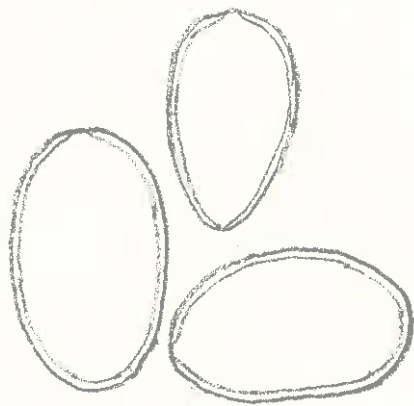
Sp - x 1000



(b) brown



Ch - x 1000



Spores - x 4000



Caulis - x 1000

PHOLIOTA AURIVELLA

Collected by E. P. Meineke, Calif., Specimen borrowed from N.Y. Bot. Garden Herb. It is labelled Hypodendrum flammans, but L.O.O. (Overholts) changed the species name to aurivella on the label.

Spores 7-9(10) x 4-5 μ , ellipsoid in face view, obscurely (or not at all) inequilateral in profile, smooth, ^{tunneate?} germ pore obscure. Basidia 18-25 x 5-6 μ , 4-spored. Pleurocystidia 30-58 x 5-10 μ , few, scattered, not found on every gill-face (section), brown (none colorless), more or less imbedded, irregular: clavate, flexuous, apices rounded, acute, or capitate; cheilocystidia 25-32 x 4-6 μ , rare, brown (rarely colorless), flexuous, cylindric, apices more or less acute. Gill trama a mediostrate, of subparallel hyphae, 3-5 μ broad. Subhymenium gelatinous. Pileus trama interwoven. Cuticle a gelatinous zone, the hyphae colorless, tangled, or more or less a turf, the terminal elements somewhat cystidioid. Caulocystidia none found. Clamps present.

Pileus trama and gill trama pale yellowish brown in KOH; reddish brown in Melzer's reagent.

PHOLIOTA AURIVELLA

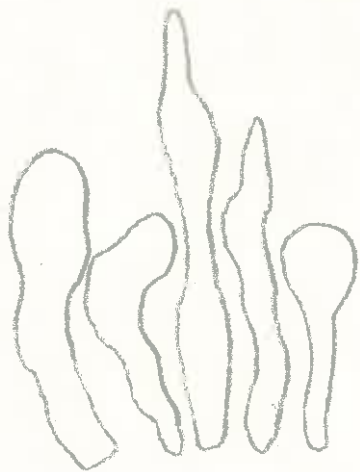
Collected by E. P. Meineke, Calif., Specimen borrowed from N.Y. Bot. Garden Herb. It is labelled Hypodendrum flammans, but L.O.O. (Overholts) changed the species name to aurivella on the label.

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Pileus trama and gill trama pale yellowish brown in KOH; reddish brown in Melzer's reagent.

Pholiota aurivella

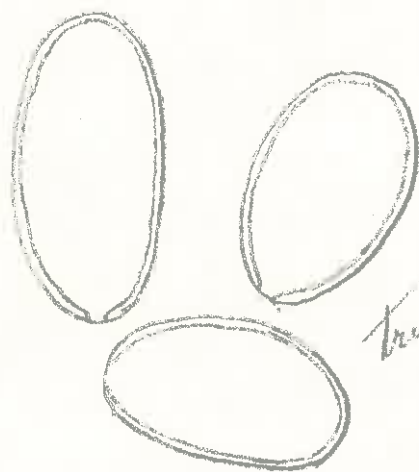
coll. E.P. Meineke, Calif., labelled
Hypodendrum flammans, corrected to *aurivella*
by B.D.O. (Overholts); collection borrowed from N.Y.B.G.



Pl: brown - x 1000



Ch - Br. - x 1000



truncate?

Spores - x 1000

Tenn-18170

PHOLIOTA AURIVELLA (Fr.) Kummer

On log, Highlands, N.C., Oct. 18, 1947

Pileus 3-5 cm broad, convex, broadly umbonate, cespitose, viscid, "antimony yellow" to "pale orange-yellow," fibrillose (under lens), with small brown spot-like scales on marginal half, glabrescent, margin even. Context thick, white, firm; odor and taste mild.

Lamellae adnexed-emarginate, pale yellow at first, finally "buckthorn brown," rather broad, close, edges fimbriate.

Stipe 9-14 cm x 8-12 mm, tapering downward, whitish and fibrillose above, dingy yellow and scaly downward, dry, tubular. Veil cottony, yellow, scarcely leaving an annulus.

Spores ellipsoidal, 6.5-8 x 4.5-5 μ , smooth, ends blunt-rounded, germ-pore present. Pleurocystidia brown, not projecting, clavate, apex pointed, 33-41 x 7-8 μ ; cheilocystidia clustered, hyaline, clavate, 20-32 x 6-7 μ .

Tenn-7302

baptista sp. nov.
PHOLIOTA (~~near spumosa~~)

(Overholts No. 15945)

On pine needles, on the ground, Hunt Co., Pa., coll. L.O.O.,
Sept. 5, 1933.

(Overholts says: This is in the spumosa-complex but apparently
not spumosa of Kauffman what has somewhat smaller spores.)

Spores (5.5)7-9 x 4-4.5 μ , ellipsoid to ovoid in face view,
inequilateral in profile, smooth, germ-pore present. Pleurocystidia
and cheilocystidia mostly with brown contents. Other characters as
in P. spumosa (Tenn-19475).

Tenn-10160

Baptisia
PHOLIOTA (~~near SPUMOSA~~)

On soil and chips, base of pine stump, New Hopewell,
Knox Co., January 24, 1937

Pileus 2-7 cm broad.

Stipe 4-7 cm x 5-10 mm, often compressed.

Spores (5.5)7-~~8~~⁹ x 3.5-4.5 μ . Pleurocystidia 48-64 x 8-13 μ , flask-shaped, neck often wavy or constricted, apex often capitate; cheilocystidia 30-40 x 8-10 μ , flask-shaped to clavate (and at times capitate). Gill trama a mediostrate, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone. Hypodermium of brown hyphae. Clamp connections present.

Tenn-15908

PHOLIOTA

caespitosa sp. nov.
~~sp. nov.~~

Type

Pileus densely caespitose (30-50 in each clump), 3-5 cm broad, convex, viscid, densely fibrillose when young, becoming fibrillose-scaly, scales more conspicuous on disc, basic color whitish, scales becoming (at maturity) "chamois," margin incurved and more or less appendiculate. Context firm, moderately thick, white; odor and taste mild (or slightly like Irish potato).

Lamellae adnate-decurrent, finally sinuate, near "honey yellow" to "buckthorn brown" (not matched exactly), nearly subdistant, medium broad, edges rough (serrulate), many short.

Stipe 4-5 cm x 6-10 mm, somewhat flattened from pressure of crowding, whitish, fibrillose-scaly up to ring, naked above, scales "chamois," dry, hollow. Veil fibrillose, copious, leaving an evanescent, fibrillose flaring ring.

Spores 5.5-7.5 x 3.5-4 μ , ellipsoid in face view, inequilateral in profile, smooth, germ-pore minute. Basidia 27-32(35) x 5-6.5 μ , 4-spored. Pleurocystidia ~~none~~, cheilocystidia 25-45 x 3-7 μ , cylindric-capitate, at times ventricose. Gill trama subparallel, ^{flanked by a gelatinous subhymenium.} hyphae 5-10 μ broad, Pileus trama interwoven. Cuticle a gelatinous zone, resting on an hypodermium of brown, incrustated hyphae. Clamp connections present. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; dark reddish brown in Melzer's reagent.

Near limonella but cystidia different, and scales not recurved. Near schraderi which has spores 6-8(9) x 4-6 μ .

rare & inconspicuous;

Pholiota (Tenn - 15908)

P. caespitosa sp. nov.

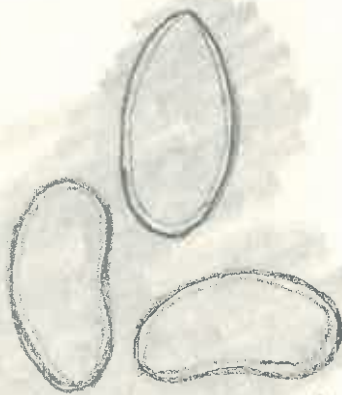
Type



Sp - x 1000



Ch - x 1000



Spores - x 4000

Tenn-3958

PHOLIOTA CARBONARIA (Fr.) Sing.

Baton Rouge, La., coll. & det., B. Lowy, No. 1751, as F. lenta,
Dec. 7, 1957

Spores 5.5-7 x 3.5-4.3 μ . Pleurocystidia 50-67 x 10-13 μ
flask-shaped, rarely capitate; cheilocystidia 38-48 x 7-10 μ ,
similar. Subhymenium a narrow gelatinous zone in some sections.
Ixocutis with brown hyphae, some obscurely incrustated.

Its brown color excludes it from P. lenta; I am assigning
it to P. carbonaria now. *cf. pumosa*

Tenn-4259

PHOLIOTA CARBONARIA

(7) Sing

On soil (burned area?), Shady Valley, Tenn., April 15, 1934

Spores 5.5-8 x 3.5-4.5 μ . Otherwise as usual.

Tenn-4260

PHOLIOTA CARBONARIA

(57) Sing

On decayed log, Shady Valley, April 15, 1934

Spores 6-8 x 3.5-4.5 μ . Except for habitat, this seems typical.

Tenn-10128

PHOLIOTA CARBONARIA (Fr.) Sing.

On charred wood and burned soil, Claxton School, Anderson Co.,
Jan. 10, 1937

Spores 5.5-7.5 x 3.5-4 μ . Otherwise typical.

Tenn-16152

PHOLIOTA CARBONARIA (Fr.) Sing.

In thin woods (on burned soil?), Gainesville, Fla., Murrill,
Jan. 23, 1944

Spores 5-7 x 3.5-4.2 μ . Otherwise typical.

Tenn-18845

PHOLIOTA CARBONARIA (Fr.) Sing.

On soil, among chips and sawdust, near Wartburg, Nov. 14, 1948

Pileus 18-30 mm, viscid, pellicle separable, glabrous "pecan brown," margin even. Context thin, toughish, watery white; odor and taste mild.

Lamellae adnate, subdecurrent, crowded, medium broad, yellowish when young, finally pale tawny, with brown spots, edges serrulate.

Stipe 4-6 cm x 3-4 mm, flexuous, dingy, scattered-fibrillose, not viscid, hollow.

Spores 6-7.5 x 3.5-4 μ , smooth, ellipsoidal in face view, inequilateral in profile. Pleurocystidia abundant, ventricose, 48-70 x 8-13 μ ; cheilocystidia similar, 34-50 x 9-12 μ . Gill trama subparallel, flanked by gelatinous subhymenium. Pileus trama radial, interwoven. Cuticle a gelatinous zone, resting on a brown hypodermium.

Tenn-21329

PHOLIOTA CARBONARIA (Fr.) Sing.

On burned-over soil, Cades Cove, det. A. H. Smith, April 18, 1954

Pileus 1-2.5 cm broad, convex, expanding-convex, viscid, not hygrophanous, glabrous, pellicle separable nearly to disk, "mikado brown," margin even. Flesh whitish, thin, firm, pliant; odor and taste none. Lamellae emarginate, at first pallid, then "pinkish buff," finally "snuff brown," close, broad, edges even. Stipe 2-3 cm x 2-3 mm, pallid, fibrillose-reticulated, becoming somewhat fibrillose-scaly, solid, tough, pliant, equal. Veil none.

Spores 5.5-7(8) x 3.5-4 μ , smooth, "snuff brown" in mass, ellipsoidal to subovoid in face view, inequilateral in profile. Pleurocystidia scattered, bottle-shaped, 51-60 x 4.5-5.5 μ , projecting 24-35 μ , some with brown pigment; cheilocystidia similar, 28-42 x 7-10 μ .

Tenn-21600

PHOLIOTA CARBONARIA (Fr.) Sing.

On burned soil and charcoal, Wakulla Co., Fla., December 24, 1954

Spores 5.5-7.5 x 3.5-4 μ . Otherwise typical.

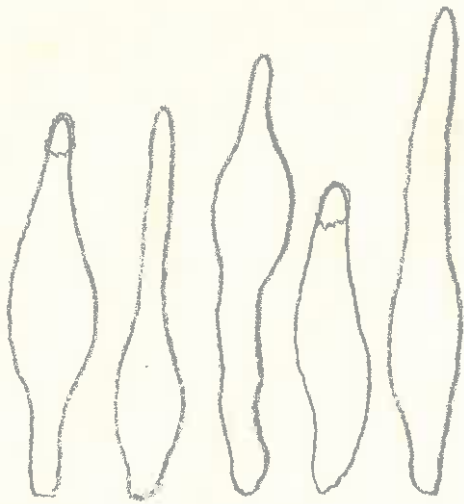
Tenn-22978

PHOLIOTA CARBONARIA

On burned soil, DeKalb County, Alabama, A.J.Sharp, April 4, 1959

Spores (5)5.5-7.5 x (3)3.5-4.5 μ . Pleurocystidia 40-65 x 8-12 μ ; cheilocystidia 27-42 x 5-8 μ . Otherwise typical.

Pholita carbonaria Smith
No. 22978



Pl - 40-65 x 8-12 μ
x 1000



Ch - 29-42 x 5-8 μ .
x 1000

Tenn-23883

PHOLIOTA CARBONARIA (7) Sing.

At base of Fagus stump (no trace of burnt wood), Netherlands,
leg. & det. Maas Geesteranus, Oct. 15, 1960

Notes by Geesteranus

Pileus up to 40 mm across, convex, later on depressed and with wavy margin, minutely fibrillose under a mucous layer, with arachnoid-floccose squamules near margin; fulvous to red-brown in center, pale ochraceous or stramineous near margin. Context white in centre of pileus, red-brown under cuticle, watery over the gills, watery yellow in stipe, brownish yellow towards its base.

Stipe 30-55 x 2-7 mm, hollow, tough, flexuous, tapering downwards, minutely floccose at apex, otherwise fibrillose, more or less densely covered with floccose or scale-like fibrils; whitish or pale stramineous at apex, fulvous below.

Gills adnexed to adnate, decurrent with tooth, fairly crowded, thin, 4-5 mm broad, smooth, yellow-brown to dingy brown, with irregular yellow edge.

Notes by Hesler

Spores (5.5)6-7.5 x 3.5-4.5 μ , ellipsoid to ovoid in face view, inequilateral in profile, smooth. Basidia 22-28 x 4-5 μ , 4-spored. Pleurocystidia 48-82 x 9-13 μ , flask-shaped; cheilocystidia 32-45 (68) x 7-9(14) μ , flask-shaped or fusoid-ventricose. Gill trama a mediostrate, hyphae subparallel, 4-8 μ broad. Subhymenium gelatinous. Pileus trama radial, interwoven. Cuticle a gelatinous zone, resting on a brown hypodermium.

Pholista castanea Sm. & Hes.

Tenn-18874

~~HYPOCISTIS~~

On soil, edge of woods, New Hopewell (Knox Co.), Dec. 22, 1948

Pileus 2-4 cm broad, convex-plane, hygrophanous, glabrous, "chestnut", margin even. Context pallid, thick on disc, thin on margin; odor and taste mild.

Lamellae adnate then sub-emarginate, decurrent by a tooth, linear, broad, crowded, edges even, "snuff brown".

Stipe 5-8 cm long, 3-6 mm thick, pale reddish brown, nearly glabrous, tapering downward, dry, stuffed. Veil leaving a fugacious apical ring.

Spores 5.5-7 x 3.5-4 μ , ellipsoid or subovoid, inequilateral in profile, smooth, germ-pore ^{rather obscure} ~~none~~. Pleurocystidia 40-55 x 10-14 μ , obclavate, or ventricose with a short stalk and tapering neck; cheilocystidia 24-33 x 5-9 μ , subfusoid, clavate, or subventricose, some with a brown pigment. Gill trama slightly interwoven, hyphae 3-6 μ broad. Pileus trama radial. ^{Pileus an ixocutis.} ~~Cuticle of pseudoparenchyma.~~

Hypodermium cellular.

Tenn-18874 PHOLIOTA CASTANEA Sm. & Hes.

On soil, edge of woods, New Hopewell (Knox Co.),

December 22, 1948

Pileus 2-4 cm broad, convex-plane, hygrophanous, glabrous, "chestnut," margin even. Context pallid, thick on disc, thin on margin; odor and taste mild.

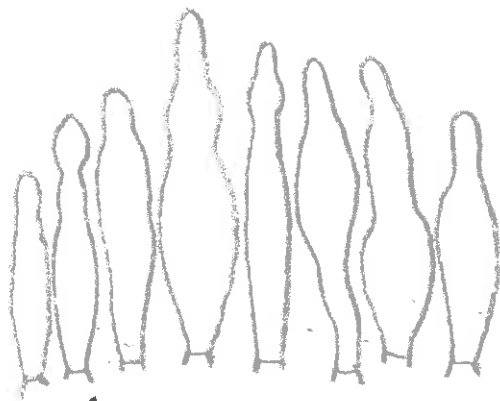
~~Stipe~~ Lamellae adnate then sub-emarginate, decurrent by a tooth, linear, broad, crowded, edges even, "snuff brown."

Stipe 5-8 cm long, 3-6 mm thick, pale reddish brown, nearly glabrous, tapering downward, dry, stuffed. Veil leaving a fugacious apical ring.

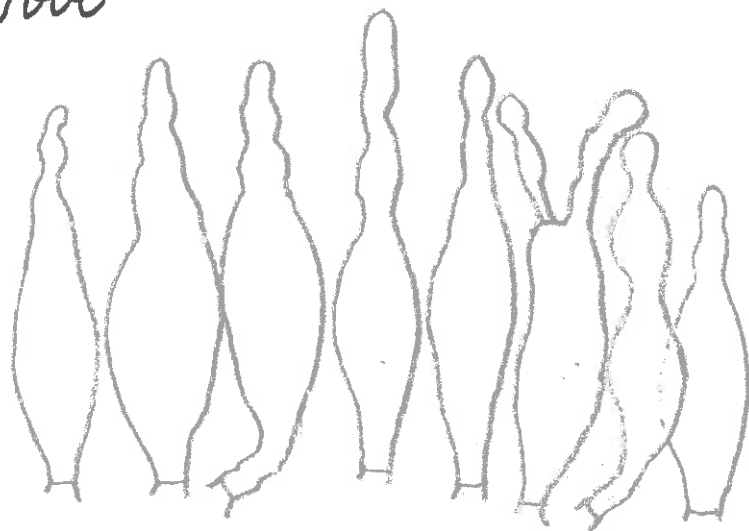
Spores 5.5-7 x 3.5-4 μ , ellipsoid or subovoid, inequilateral and a few subreniform in profile, smooth, germ-pore small, obscure. Pleurocystidia 43-60 x 10-15 μ , ventricose, some with a short stalk and tapering neck; cheilocystidia ~~24-45~~ 24-45 x 5-10 μ , subventricose, some with a brown pigment. Gill trama slightly interwoven, hyphae 3-6 μ broad. Pileus trama radial. Pileus cuticle an ixocutis. Hypodermium cellular.

Pholiota castanea Sm. & Nes.

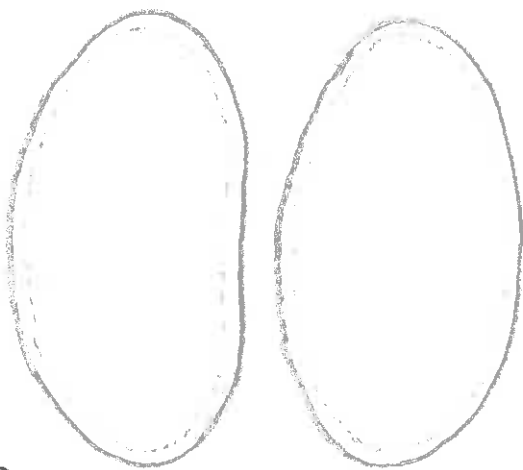
18874



Ch $\times 1000$



Pl $\times 1000$



Profile

Face

Spores $\times 8000$

Tenn-20269

Castanea sp. nov.
PHOLIOTA (near SPUMOSA)

On rich soil and rotten wood, Knoxville, December 11, 1951

Pileus 3-5 cm, convex, finally expanded-convex, in age at times depressed-concave, glabrous, viscid, "bister," paler when young (near "tawny"), even. Context thin, firm, white; odor and taste mild.

Lamellae emarginate, white when young, finally "tawny-olive" or slightly darker, close or crowded, rather broad, edges slightly rough. Stipe 4-6 cm x 4-6 mm, tapering downward, pallid then dingy, fibrillose, solid or somewhat stuffed. Veil webby, evanescent, leaving an apical "ring" which finally disappears. Spores 8 x 4 microns (rather uniformly so), smooth, brown, ellipsoidal (not truncate). Pleurocystidia bottle-shaped 35-44 x 7-12 microns, scattered; cheilocystidia similar, few.

Spores 5.5-7.5 x 3.5-4 μ , ellipsoid to more or less oblong in face view, slightly inequilateral in profile, smooth, germ pore minute. Basidia 22-27 x 5-6 μ , 4-spored. Pleurocystidia 45-72 x 10-12 μ , ventricose, at times constricted; cheilocystidia 27-42 x 6-11 μ , fusoid to ventricose, or subcylindric. Gill trama of parallel hyphae, 4-7 μ broad; subhymenium a very narrow zone of gelatinous hyphae, or in many sections none. Pileus trama interwoven. Cuticle a gelatinous zone 275-475 μ thick, hyphae 1.5-3 μ broad. Hypodermium of brown hyphae, at times obscurely incrustated. Clamp connections present. Caulocystidia above "ring" none.

Pileus trama yellowish brown in KOH; darker yellowish-brown in Melzer's reagent. Gill trama colorless in KOH, reddish-brown

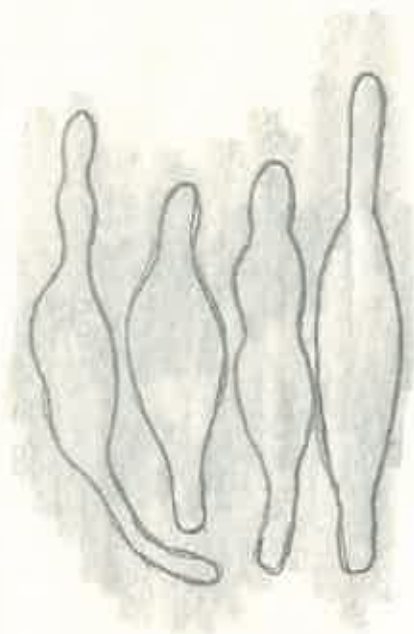
in Melzer's reagent.

This differs from P. spumosa in its pileus colors, in its narrow subhymenium, white gills, and different pleurocystidia and cheilocystidia.

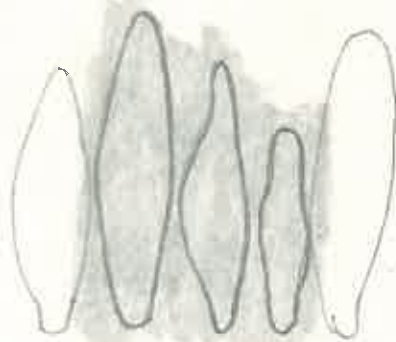
Seems close to Flammula carbonaria Fr., and possibly also F. highlandensis Pk.

Pholiota castanea sp. nov.

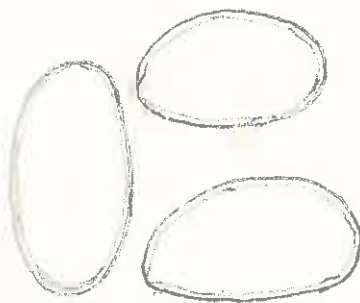
Tam - 20269



Sp - x 1000



Ch - x 1000



Spores - x 4000

Tenn-24974

PHOLIOTA *castanea* cf. not

PHOTO

On lawn, under pine, near Paul Sherbakoff's, Knoxville, Oct. 22, 1962

Pileus 2-4.5 cm, convex, finally plane, "pecan brown" to "Kaiser brown," glabrous except for a marginal zone of veil remnants, somewhat hygrophanous, viscid, marginal crenate. Context white, firm; odor and taste slight or mild.

Lamellae adnate or adnexed, seceding, pale olive (not matched), finally "clay color," medium brown, close.

Stipe 2-5.5 cm x 4-8 mm, dingy-pallid, fibrillose-scaly over all, equal or tapering down, stuffed to hollow. Veil forming a fibrillose, superior annulus.

Spores in deposit: "snuff brown," 5.5-7 x 3.5-4 μ , ellipsoid to ovoid, inequilateral, smooth, germ-pore present. Basidia 21-25 x 5-6 μ , 4-spored. Pleurocystidia 44-57 x 9-12 μ , ventricose or obclavate; cheilocystidia 22-40 x 6-10 μ , versiform: ventricose, subfusoid, obclavate. Gill trama subparallel, hyphae 5-10 μ broad, flanked by a gelatinous subhymenium. Pileus trama radial. Cuticle gelatinous. Hypodermium of brown, thick-walled, incrusting hyphae, radially disposed. Clamps present. Caulocystidia 53-92 x 7-12 μ , cylindric, clavate, subventricose, apices acuminate or rounded, at times constricted.

~~cf. fibrillose.~~

Pholista

PHAEOMARASMIUS CONFRAGOSUS (Fr.) ^{Karsten} Singer

~~Agar.~~, ~~p. 594.~~ 1951 Hattorampay (Bidr. Finlande
Natur och Folk) p. 304. 1879.

Pileus 2-3.5 cm broad, convex, expanded-depressed,
hygrophanous, "vinaceous buff" to "fawn color" (wet), "pale
cinnamon pink" (dry), fibrillose-floccose, at times squamulose,
margin faintly striatulate (wet), even (dry). Context thin,
to pallid
white; odor and taste mild.

Lamellae adnate, usually with a decurrent tooth, "fawn
color" (young), "walnut brown" (mature), close, medium broad,
edges crenulate.

Stipe 2.5-3.5 cm x 4-5 mm, fibrillose, concolor with
pileus, dry, hollow. Annulus superior, membranous, rather
persistent.

Spores 6-8 x 4-5 μ , ellipsoid, pale brown, smooth, ends
not truncate, no germ-pore. Pleurocystidia none; cheilocystidia
30-50 x 5-7 μ , cylindrical to hair-shaped.

Agaricus confragosus Fr., Epicr. Myc., p. 169. 1838.

Pholista confragosa (Fr.) Karst., Hattor., p. 304. 1879.

Naucoria confragosa (Fr.) Sing., Michigan Acad.

Sci., Arts, & Letters 32: 143. 1946.

Tulridula confragosa (Fr.) Sing. —? 1937.

~~Phas~~

HEB # 2970

Pholiota

PHAEOMARASMIUS CONFRAGOSUS

(Fr.) Karsten

Pileus 1-2 cm broad, convex with disc slightly depressed and the margin incurved, not striate, edge finely tomentose from veil remains, glabrous otherwise, hygrophanous, color moist, a dark vinaceous brown (SSD 4-8°, 4-9°, 4-10°, 5-8°, 5-9°, 5-10°), fading to a cinnamon buff, ochraceous salmon. Context thin, concolorous and fading with pileus, no odor or taste.

Lamellae adnate, close, 2-3 mm broad, color a pale vinaceous brown when young, darkening to rusty brown, edges straight and minutely fimbriate.

Stipe 2.5-3 cm long, 3-4 mm thick, central, equal, slightly curved, base with tuft of white tomentum, surface heavily fibrillose, obscurely striate, more or less vinaceous buff fibers, ground color obscure, more or less concolorous with moist pileus. Veil more or less membranous and forming an annulus, persistent although becoming appressed in age, fibrillose on underside, whitish with rufous tint.

Two solitary specimens on decayed conifer log. July 3, 1956, near Guerette, Aroostook Co., Main. Coll. H.E. & M.E. Bigelow.
HEB # 2970, card.

Additional observations: HEB # 3082: gregarious to caespitose on mossy conifer log; pileus 1-3.5 cm, plane with margin narrowly decurved, even and smooth, in age the disc shallowly depressed, shape regular, pileus moist: SSD 4-10°, 4-11°, 4-12°, 5-10°, 5-11°, 5-12°, 6-10°, 6-11°, 6-12°, fading slowly to OOS 17-7°, 8°, 9°, 18-8°; gills up to 5 mm broad, stipe 2-6.5 cm x 2-5 mm, base slightly enlarged, fibrils appressed in age and surface then slightly scabrous or fibrillose-striate, ground color like moist pileus; photo.
HEB # 3241: obscurely pellucid-striate, stipe base strigose hairy.

Bigelow-3024

~~Phaeomarasmius~~
~~Pholiota~~ PHOLIOTA confragosa (Fr.) Karst.

On conifer log, Sinclair, Me., leg. H.E. Bigelow, July 5, 1956

Notes by Bigelow

(Same as Big-3055 and Big-3082)

Pileus 1-2 cm broad, convex with disc slightly depressed and the margin incurved, not striate, edge finely tomentose from veil remains, glabrous otherwise, hygrophanous, color ^{when} moist, a dark vinaceous brown (SSO 4-8°, 4-9°, 4-10°, 5-8°, 5-9°, 5-10°), fading to a cinnamon buff, ochraceous salmon. Context thin, concolorous and fading with pileus, no odor or taste.

Lamellae adnate, close, 2-3 mm broad, color a pale vinaceous brown when young, darkening to rusty brown, edges straight and minutely fimbriate.

Stipe 2.5-3 cm long, 3-4 mm thick, central, equal, slightly curved, base with tuft of white tomentum, surface heavily fibrillose, obscurely striate, more or less vinaceous buff fibers, ground color obscure, more or less concolorous with moist pileus. Veil more or less membranous and forming an annulus, persistent although becoming appressed in age, fibrillose on underside, whitish with rufous tint.

Notes by Hesler

Spores 6-8 x 4-4.5 μ , ovoid or ellipsoid, slightly inequilateral, smooth, germ-pore none. Basidia 25-28 x 5-6 μ , 2-4-spored. Pleurocystidia none; cheilocystidia 40-68 x 4-5 μ , clustered, filamentous-cylindric, often flexuous or crooked. Gill trama interwoven, hyphae 4-7 μ broad. Pileus trama radial-interwoven. Cuticle a trichodermium, epicuticular hyphae broad (6-15 μ), pallid-brownish, incrustated. Clamp connections present. Caulocystidia 24-53 x 4-5 μ , similar to cheilocystidia.

Same as 3055 and 3082. Of general appearance of Galerina discolor.

Sm-3055

PHOLIOTA

confusa (Fr.) Karsten
(Card-2970)
~~not found~~

(Same as 3024)

On hardwood mossy log, Winterville, Maine, July 6, 1956

Notes on Label

Pileus 1.5-2.5 cm broad, convex, finally plane, margin repand, not striate, dark-brown fading to pale buff (506-8° to 00519-12°).

Stipe pale cinnamon buff, 2-3 cm x 2-3 mm, equal, fibrillose, striate under lens. Annulus persistent.

Notes by Hesler

Same as Sm-3024 and Bigelow-3082.

Bigelow-3082

PHOLIOTA

confragosa (Fr.) Karsten
Card - 2970

Guerette, Me., July 7, 1956

~~Sm~~ ~~Sm~~
Same as 3024 and 3055

Bigelow-3241

Pholiota
~~Phaeomarasmius~~ PHOLIOTA confragosa (Fr.) Karsten

Near Madawaska Lake, Me., July 14, 1956

(Same as 3024)

Spores 6-8 x 4-4.5 μ . Cheilocystidia 40-72 x 4-7 μ ,
filamentous, often flexuous. Otherwise as in 3024.

Bigelow-5215

Pholista

~~PHAEOMARASMIUS~~ CONFRAGOSA

(Fr.) Karsten

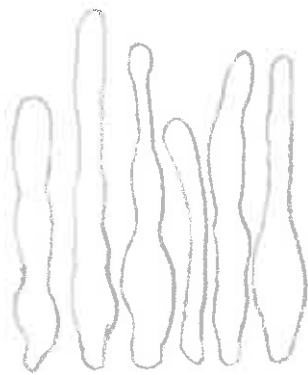
Mt. Albert, Quebec, on mossy conifer log, July 6, 1957

Bigelow says the cap is rufous, glabrous, and an annulus is present.

Spores $5.5-7.5 \times 3.8-4.5 \mu$, broadly ellipsoid in face view, more or less inequilateral in profile, smooth, germ-pore minute. Basidia $18-22 \times 4.5-5 \mu$, 4-spored. Pleurocystidia none; cheilocystidia $33-48 \times 4-7 \mu$, more or less cylindric, at times the base slightly enlarged and with a neck. Gill trama narrow, hyphae slightly interwoven, brown, $2-4 \mu$ broad. Pileus trama more or less interwoven. Cuticle a trichodermium of hyphae which are septate, constricted, often in tufts (Phaeomarasmius-like), usually colorless, at times very dilute-brown. Clamp connections present.

The annulus is superior, membranous, persistent, flaring.

Pholiota confragosa (Fr.) Karsten
Bigelow - 5215



Ch - x 1000

Tenn-9484

Pholiota

a *Phaeomarasmius confragosus* (Fr.) *Karsten* Singer

On birch log, Clingmans, GSMNP, Sept. 27, 1936

Spores 6.5-8(9.5) x 4-4.5(5) μ , ellipsoid to subovoid, inequilateral in profile, smooth, no germ-pore. Basidia 24-28 x 6 μ , 4-spored. Pleurocystidia none; cheilocystidia 32-66 x 6-7 μ , cylindric. Gill trama slightly interwoven, hyphae 6-11 μ broad. Pileus trama interwoven. Cuticle a trichodermium, hyphae pale brown to nearly colorless, incrustated. Clamp connections present. Pileus and gill trama brownish in KOH; reddish brown in Melzer's reagent.



18997 - *Pholiotia confragosa* (Fr.) Racc.

Tenn-25531

Pholista

^a
~~PHAEOMARASMIUM~~ CONFRAGOSUS (Fr.) ~~Sing~~ Karsten PHOTO

On spruce wood (more or less buried), near Clingman's Dome,
June 7, 1963

Pileus 1.5-3 cm broad, convex, more or less expanding, hygrophanous, dingy pale brownish when dry, "chocolate" when wet, glabrous, short-striatulate. Context watery brown; odor and taste slightly acidulous.

Lamellae adnate, brown, subdistant, broad behind, somewhat narrowed in front, edges fimbriate to denticulate.

Stipe 2-4.5 cm x 2-3.5 mm, dingy to more or less brownish, striate, fibrillose, becoming hollow. Veil superior, whitish, membranous.

Spores 5.5-8 x 4-4.5 μ , ellipsoid, often broadly so, inequilateral, smooth, no pore. Basidia 24-27 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 27-60 x 3.5-6 μ , cylindric or sub-ventricose. Gill trama subparallel, hyphae 4-11 μ broad. Pileus trama radial. Cuticle a trichodermium, of long, brownish, constricted-septate hyphae, often in fascicles, usually incrustated. Clamps present. Caulocystidia none.

NAUCORIA CORTICOLA Murr.

Mycologia 4:77. 1912

Pholiota corticola (Murr.) Sm. & Hes., N. A. Species of
Pholiota, p. 74. 1968.

Type

Pileus 1-1.5 cm broad, convex to subexpanded, avellaneous-isabelline, innately fibrillose with slight tufts, resembling Panus stypticus, margin undulate, incurved when young. Context thin.

Lamellae adnate, dull-whitish to bay-fulvous, broad, heterophyllous, rather distant.

Stipe 1 cm long, 1 mm thick, yellow, apex glabrous, whitish-pubescent below, cylindric, equal.

Notes by Hesler

Spores 7-9(10) x 4.5-5.5 μ , ellipsoid, scarcely inequilateral, smooth (even at 1500X) germ-pore small and often not seen, wall 0.4-0.5 μ thick, not obviously truncate but occasionally slightly so at 1500X, rusty brown in water and in 2% KOH, paler (yellowish brown) in Melzer's reagent and many collapsed. Basidia 20-25 x 5-7 μ , 2-4-spored. Pleurocystidia 42-78 x 6-14 μ , cylindric, usually ventricose below, thin-walled, cheilocystidia 30-52 x 6-10 μ , similar. Gill trama usually with a mediostrate, flanked by a gelatinous subhymenium. Pileus cuticle a trichodermium of brown to nearly colorless, incrusting hyphae,

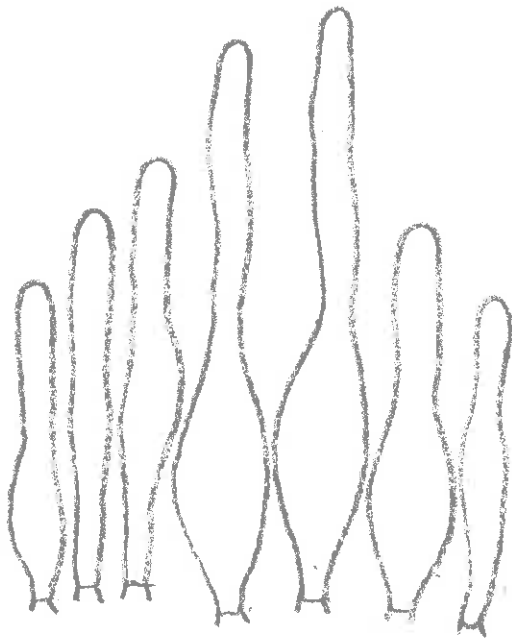
the cells cylindric, occasionally the terminal element pileocystidioid, more or less slender-fusoid, 48-62 x 7-8 μ , incrusted. Stipe cuticle of dry, repent hyphae; no caulocystidia found.

Type on the bark of a stump, Cinchona, Jamaica, December 25-January 8, 1908-9, Murrill No. 533 (NY).

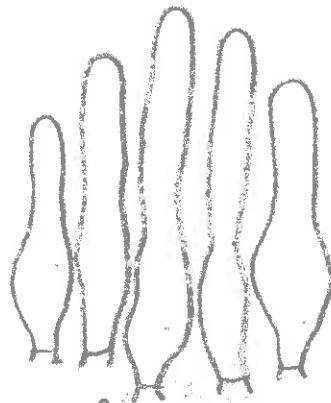
This became Pholiota corticola (Murr.) Sm. & Hes. in N. A. Species of Pholiota, p. 74. 1968. Its gill trama structure indicate Pholiota rather than Phaeomarasmius.

Nauoria corticola Murr.

Type (= *Pholiota* *corticola* (Murr.) Sm & Hb.)



PL x 1000



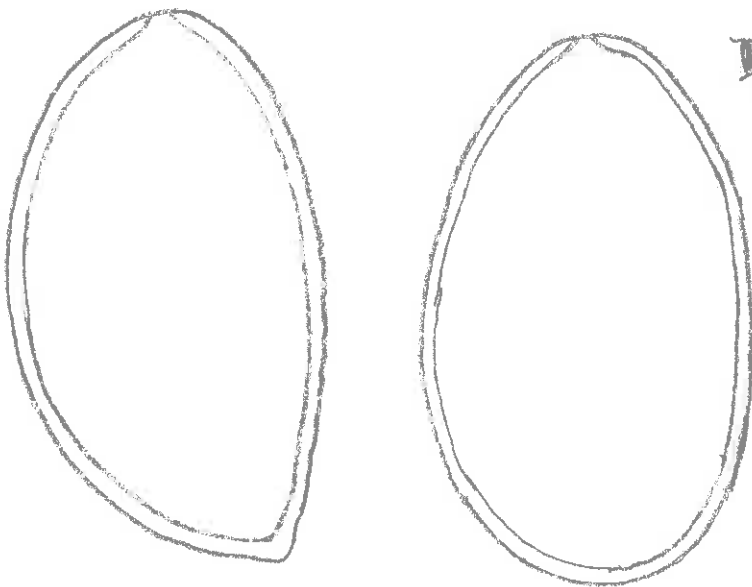
Ch x 1000



Pileo - x 1000



Pileo epicuticular hyphae
x 1000



Spores x 8000

Pholiota curcuma (B. & C.) Sm. + Hes.

F 10003

NAUCORIA CURCUMA (B. & C.) Sacc.

Syll. Fung. 5:854. 1887

← Agaricus curcuma B. & C., Ann. Mag. Nat. Hist. II: 12:
421. 1853.

Phaeomarasmius curcuma (B. & C.) Singer

(Descr. from NAF 10:176)

Pileus 2 cm broad, hemispheric, densely fasciculate-squamulose, dark brownish yellow. Context thin, yellow.

Lamellae emarginate, slightly attached, dark-ochraceous, broad, medium close, ventricose, edges white-fimbriate.

Stipe 2.5-4 cm long, 2 mm thick, brown, fibrillose to fasciculate-squamulose, solid, dilated at the base, dry.*

Notes by Hesler

Spores 6-8.5 x 4-4.5 μ , slightly inequilateral or some subreniform in profile, ellipsoid to subovoid in face view, smooth, ^{minute,} ~~no~~ germ pore, brown to yellowish brown in water or in 2% KOH, pale or almost colorless in Melzer's reagent, wall rather thin. Basidia 18-23 x 5-6 μ , 2-4-spored. Pleurocystidia none; cheilocystidia 38-56 x 5-7 μ , cylindric and more or less capitate, in conspicuous dense tufts. Gill trama of subparallel hyphae, 2-5 μ broad. Pileus cuticle of repent hyphae, bearing numerous brown fasciculate scales, composed of more or less clavate cells (30-60 x 7-10 μ) in chains, no incrustations found. Stipe cuticle repent, dry, with scales similar to those on the pileus, but the component

F 10003

Pholiota

~~N.~~ curcuma - page 2

cells somewhat smaller.

Leg.-det. Murrill, (F 10003) on dead wood, Kelley's Hammock, near Gainesville, Fla., July 19, 1938.

Key to species, by Singer: Lilloa 22:578-579. 1951 (Agaricales in Modern Taxonomy); also: Schweiz. Zeitschr. f. Pilzk. 34:44-47, 53-65. 1956 (no vol. in U-T Library prior to 1967).

AGARICUS CURCUMA B. & C.

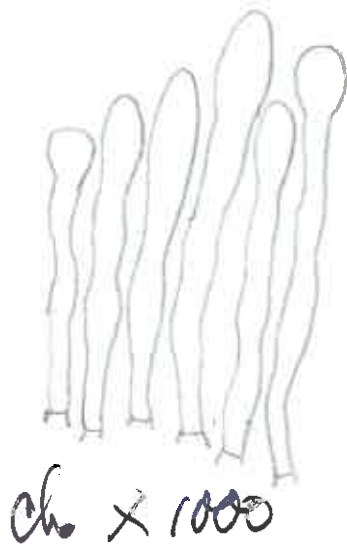
Singer (Sydowia 9:413) gives a micro description. Type from South Carolina. Near Phaeomarasmius muricatus (Fr.) Sing. (see: Lilloa 25:387. 1951) but differs in a less cellular epicutis, shape of ch, and slightly longer spores. It also differs from Phaeomarasmius erinaceellus Singer & Digilio, Lilloa 25:395. 1951, in different ch and in a larger proportion of sphaerocysts in the cuticle.

That species called Naucoria curcuma by Murrill (F10003) has non-reniform spores, 6.5-7.3 x 5.8-7.2 μ . It is a form of Phaeomarasmius gracilis (Quel.) Romagn. sensu.

~~Pholiota~~
~~Phaeocoria~~ *circuma* (B. & C.) ~~Sacc.~~ Sm. & Hes.

Mwoll - 7 10003

[= Phaeomarasmius *circuma*
(B. & C.) Singer]



Profile



Face

Spores x 8000

Pileus epicuticular
scale (column) - x 1000
[no incrustations found]

Pholota curcuma (B+C) Sm. & Hes,

~~PHAEOMARASMIUS CURCUMA~~ (Berk. & Curt.) Singer

Agaricus curcuma B. & C., Ann. Mag. Nat. Hist. II. 12:421. 1853.

Naucoria curcuma (B. & C.) Sacc., Syll. Fung. 5:854. 1887.

Murrill Description

Pileus 2 cm broad, hemispheric, dark-brownish-yellow, densely covered with squamose fascicles of flocci. Context thin, yellow.

Lamellae emarginate, slightly attached, dark-ochraceous, broad, ventricose.

Stipe 2.5 - 4 cm long, 2 mm thick, brown, fibrillose, dilated at base solid.

Type: Notes by Hesler

Spores 7-9 (10) x 4-4.5 (5) μ , slightly inequilateral to reniform in profile, ellipsoid in face view, smooth, no germ-pore, brown in 2% KOH. Pleurocystidia none; cheilocystidia 24-35 x 7-12 μ , clavate, rarely sub-ventricose. Pileus cuticle repent, bearing fascicles of brown, + incrustated hyphae.

Stipe material not available.

Singer: Sydowia 9:413-414, gives the following account:

Phaeomarasmius Scherffel

Agaricus curcuma Berk. & Curt.

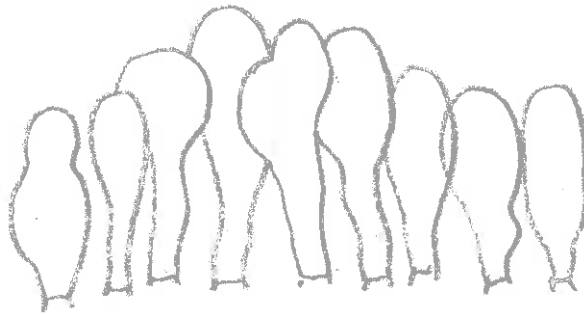
Spores 7.3-9.8 = 4.5-5 μ , mostly 8.3-8.8 = 4.3-4.8 μ , smooth, relatively well colored but with rather thin although not collapsing walls, pale rust color, suddenly contracted to a subacute apex when seen in frontal view and

therefore at times almost appearing sub-angular, or almond shaped, in lateral view the inner side entirely applanate or very slightly concave; basidia 20-27 = 5.8-7.5 μ , (1)2-(3)-4-spored; cystidia none; cheilocystidia 20-58 = 4.5-11 μ , clavate, rarely almost vesiculose, cylindrical, or cylindrical-subcapitate, hyaline, few brownish, often with a small mucro, making the gill edge heteromorphous; hymenophoral trama regular; epicutis of pileus consisting of hyphal chains whereby many members of the chain are strongly shortened and almost subisodiametrical, 4.5-25 μ broad, the terminal cells varying from subulate or cylindrical to vesiculose-subclavate (37-41 = 17.5-19 μ) or even subglobose (e. gr. 33.5 = 25 μ), but basically elongate rather than forming an epithelium, nevertheless unusually variable; all hyphae with clamp connections, those of the cuticle strongly rusty pigment-incrusted. Carpophores between small and medium sized, naucorioid.

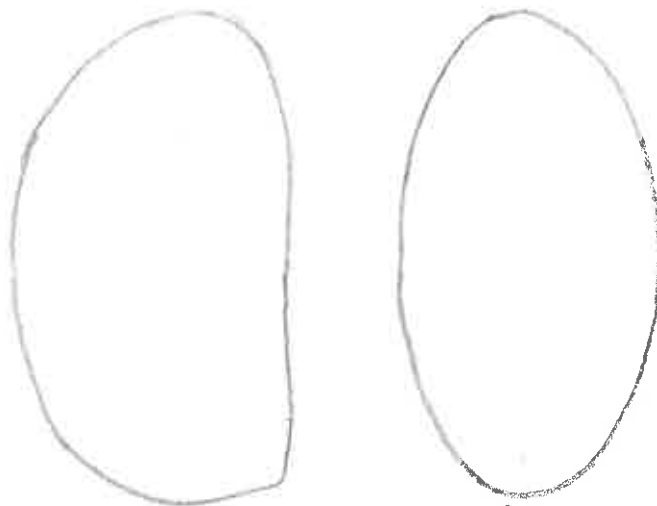
The type, no. 2913. from South Carolina (K, FH) is in good condition. It is close to P. muricatus (Fr.) Sing. (Pholiota muricata (Fr.) Quél.) (which see Lilloa 25: 387. 1951). but differs in less cellular epicutis and in the shape of the cheilocystidia, also in slightly longer spores. It differs from the species (incorrectly as it seems*) described as P. erinaceellus by Singer & Digilio (Lilloa 25: 395. 1951). in different cheilocystidia and a larger proportion of spherocysts in the cuticle. The species called Naucoria curcuma by Murrill (F 10003 from Kelley's Hammock, Alachua Co., Fla.) has non-reniform spores 6.5-7.3 = 4.2-4.5 μ , a truly cellular cuticle and (subcylindrical to) clavate cheilocystidia of 50-72 = 5.8-10.2 μ . It is a form of the rather polymorphous Phaeomarasmius gracilis (Quél.) in the sense of Romagnesi.

^{Pholista}
~~Phaeo~~maximatus curcuma (B. + C.) Sm. + Hes.
[Agar. curcuma B. + C.]

Type



Ch x 1000



Profile

Face

Spores x 8000

Tenn-14195

PHOLIOTA CURVIPES (Fr.) Qué1. (?)

On log, Sevier Co., GSMNP, Mt. LeConte, May 24, 1942

Pileus 1.5-2.5 cm broad, convex, "vinaceous-rufous", fibrillose-squamulose, almost hispid, not viscid, margin even. Context firm, medium thick; odor mild (slightly alkaline).

Lamellae adnate, decurrent by a line, close, yellowish, crenulate.

Stipe 3-5 cm long, 3-4 mm thick, stained brownish, fibrillose, apex yellow-floccose. Veil somewhat membranous, evanescent, yellowish.

Spores 7-8 x 3.5-4.5 μ , ellipsoid, smooth. Pleurocystidia none; cheilocystidia 36-45 x 4-5 μ , cylindric-clavate.

Dr. A. H. Smith states that this may be Pholiota curvipes (Fr.) Qué1. *He holds the specimen.*

NAUCORIA CYATHICOLA Murr.

Mycologia 4:77. 1912

Pholiota cyathicola (Murr.) Sm. & Hes., N. A. Species of
Pholiota, p. 75. 1968.

Type

Pileus 7-12 mm broad, hemispheric-umbonate, isabelline, pale-fulvous on the umbo, innately fibrillose, margin not striate.

Lamellae squarely adnate, whitish to pale-ochraceous, distant.

Stipe 2 cm long, 1.5 mm thick, isabelline, fibrillose, cartilaginous, subequal, cylindric. Veil remnants as fibrils on the stipe and pileus.

Notes by Hesler

Spores (6.5)7-9.5 x 4-5.5 μ , ellipsoid, occasionally obscurely inequilateral, smooth, no germ pore evident, near rusty brown in 2% KOH, wall double (about 0.3-0.4 μ thick). Pleurocystidia 45-72 x 7-11 μ , flask-shaped, ventricose, often with a long basal stalk (which may penetrate to the mediostrate), with more or less of a neck; cheilocystidia 40-53 x 9-12(14) μ , somewhat similar. Gill trama with a yellowish brown mediostrate, flanked by a gelatinous subhymenium. Pileus cuticle a trichodermium of brownish, somewhat incrusting hyphae; no pileocystidia found. Stipe cuticle of repent, brownish hyphae.

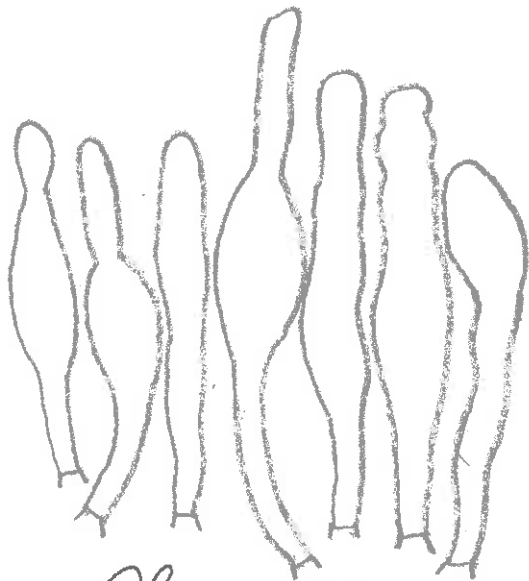
Type from Morce's Gap, near Cinchona, Jamaica, on dead trunks of tree ferns, collected by Murrill, No. 699, December 29, 30, January 2, 1908-9.

A handwritten note signed by R.W.G. Dennis states:
"N. cyathicola Murr. is identical with N. montana Murr."

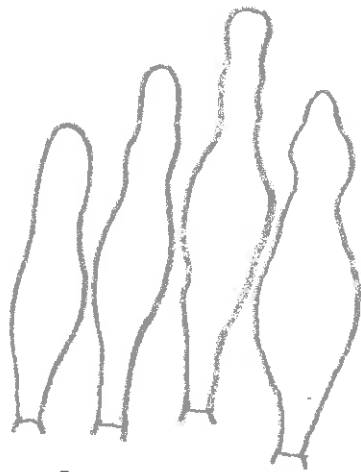
This is now Pholiota cyathicola (Murr.) Sm. & Hes., published in N. A. Species of Pholiota, p. 75. 1968.

Naucoria cyathicola Murr.

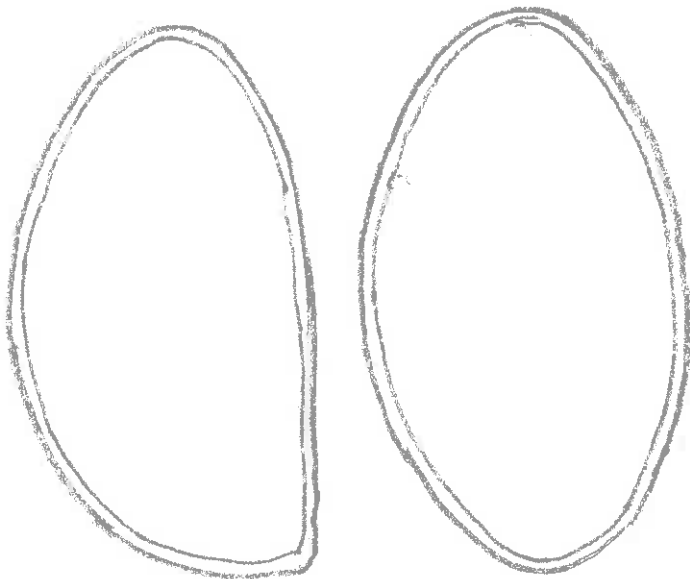
Type (= *Pholiota cyathicola* (Murr.) Sm. + Hg.)



Pl x 1000



Ch x 1000



Spores x 8000

Tenn-25142

PHOLIOTA DECUSSATA (Fr.) Moser

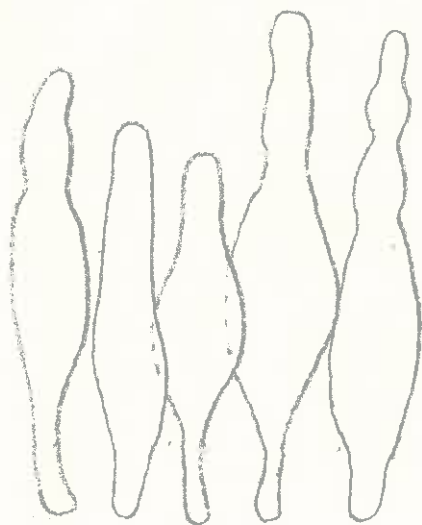
St. Leonhard, in Pitztal, Austria, leg. & det. M.Moser, Sept. 1961

Spores 6-8 x 3.5-4(4.5) μ , ellipsoid to subovoid in face view, inequilateral to subphaseoliform in profile, smooth, no germ-pore. Basidia 18-23 x 5-6 μ , 4-spored. Pleurocystidia 48-66 x 10-15 μ , ventricose, base and neck slender; cheilocystidia 35-48 x 8-14 μ , similar, often with a brownish pigment. Gill trama a narrow mediostrate, hyphae interwoven, 4-7 μ broad, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone, the hyphae brownish, narrow, incrusted, resting on an hypodermium of incrusted, brown hyphae. Clamp connections present. Caulocystidia 42-64 x 8-15 μ , clavate, scattered. Pileus and gill trama pale brown in KOH; dingy brownish in Melzer's reagent.

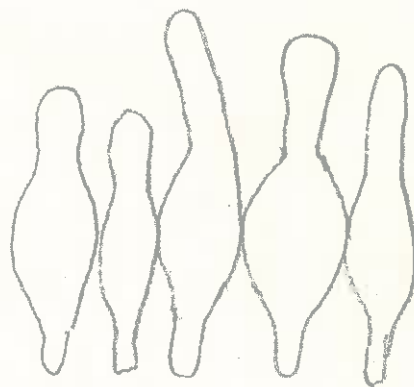
Pholiota decussata (Fr.) Moser

Polyporaceae

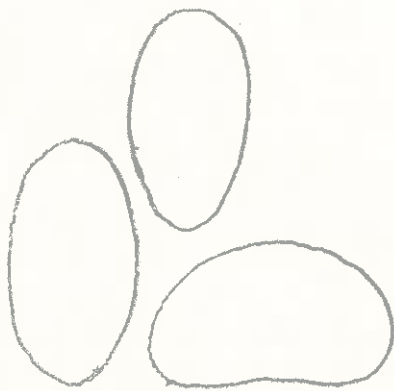
Tenne-25142 (from Moser, Austria)



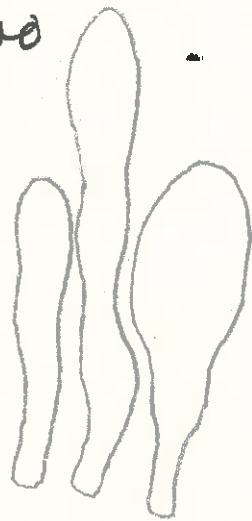
St - x 1000



Ch - x 1000



Spores - x 4000



Caules - x 1000

Tenn-9081

PHOLIOTA DUROIDES Pk.

On soil, deciduous woods, Ball Camp Pike, Knox Co., July 21, 1936

Pileus 8-9 cm broad, expanded, margin somewhat elevated, background white but well covered with small ochraceous, appressed squamules, dry, hygrophanous[?], pellicle somewhat separable, margin even. Context white, soft, thick on disc, thin at margin.

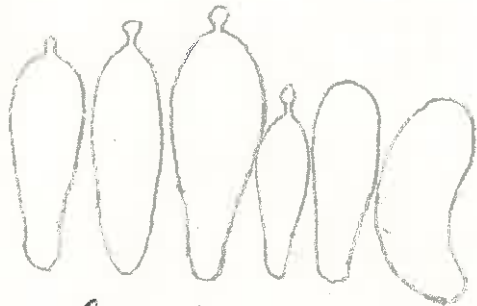
Lamellae grayish, narrowly adnate, becoming adnexed, linear, narrow (5 mm broad), edges eroded, close.

Stipe 10 cm x 10 mm, equal, subbulbous, slightly twisted, slightly flexuous, whitish, fibrillose, hollow, dry, striate. Annulus superior, white, evanescent.

Spores 5.5-7 x 3.5-4 μ , pale grayish-purple in mass⁻², pale brown under microscope, ellipsoid to ovoid, slightly inequilateral in profile, smooth, germ-pore minute or obscure. Basidia 23-27 x 4-5 μ , 4-spored. Pleurocystidia as chrysocystidia, 25-36 x 7-12 μ , clavate, often mucronate; cheilocystidia 24-28 x 5-10 μ , similar. Gill trama loosely interwoven, hyphae 7-18 μ broad. Pileus trama loosely interwoven, hyphae 8-25 μ broad. Cuticle a zone of 2-4 layers of brownish, repent hyphae. Clamp connections none. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; reddish brown in Melzer's reagent.

Pholiota duricoides PK.

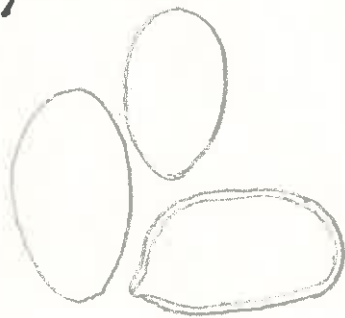
Tenn - 9081



Pl (chryso.) $\times 1000$



ch - $\times 1000$



Spores - $\times 4000$

Pholiota erinaceella (Pk.) Pk.

PHAEOMARASMIUS ERINACEELLA (Pk.) Singer

Lilloa 22: 577. 1951

Agaricus deterrentis Pk., New York State Mus. Ann. Rept. 28: 49. 1876. (non A. deterrentis Berk. & Curt., 1853.)

Agaricus erinaceellus Pk., New York State Mus. Ann. Rept. 30: 70. 1876.

Pholiota erinaceella (Pk.) Pk., New York State Mus. Bull. 122: 152. 1908.

Pileus 0.5-2.5 cm broad, hemispheric, then convex or nearly plane, tawny-brown, unchanging in drying, dry, densely covered with minute, erect, pyramidal, spine-like, or granular, tawny scales.

Lamellae adnexed or adnate, pallid then cinnamon-brown, medium close or subdistant when young, 1-2 mm broad.

Stipe 1.5-2.5 cm long, 1-1.5 mm thick, tawny, with crowded, erect, floccose scales or granules below the annulus, smooth above, equal, stuffed or hollow. Annulus little more than the abrupt termination of the scaly coating of the stipe.

Spores 5.5-8 x 3.8-4.5(5) μ , ellipsoid in face view, inequilateral or subphaseoliform in profile, smooth, no germ pore visible. Basidia 22-26 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 32-68(88) x 7-12(17) μ , cylindric-capitate, at times clavate of subpyriform, sometimes slightly constricted, colorless, sometimes brownish. Gill trama subparallel, hyphae 5-8(16) μ broad. Pileus trama radial and interwoven. Cuticle of repent hyphae, bearing tufts of brown, slightly incrusted hyphae (forming scales), often

the terminal elements clavate to subfusoid, 45-90 x 9-20 μ .
Clamp connections (not found; material unfit). Caulocystidia
40-80 x 6-8 μ , cylindric to clavate.

HABIT, HABITAT, AND DISTRIBUTION - On hardwood logs (beech especially), New York and Michigan, June - September; also reported by Overholts (1927) from Missouri.

MATERIAL STUDIED - MICHIGAN: Harding 171 (MICH); Peters 1136 (MICH); Shaffer 2208 (MICH); Smith 37175, 39112, 39458, 41667, 41760, 41769, 41809, 41998, 61340.

OBSERVATIONS - This is very close to Ph. muricata, in which the scales appear less spine-like, and with shorter cheilocystidia.

On dead + decaying trunks of
deciduous trees,

Phacomaroneum?
(as *Pholiota* in
Em. + Hes.)
PHOLIOTA ERINACEELLA Pk.

Leg. C.H. Peck, Lake Pleasant, New York

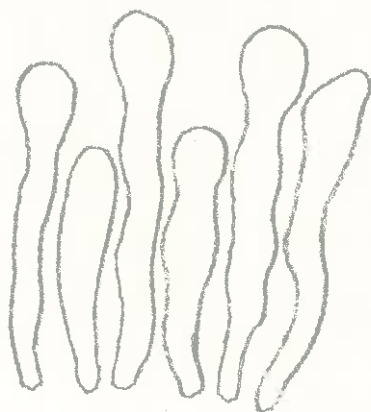
Type

Spores 5.5-8 x 4-4.5(5) μ , ellipsoid in face view, inequilateral to sub-phaseoliform in profile, smooth, no germ pore observed. Basidia (unfit for study). Pleurocystidia none; cheilocystidia 32-50 x 7-8 μ , cylindric-capitate, at times clavate, sometimes slightly constricted, colorless, more rarely brownish. Gill trama (unfit for study). Pileus trama radial and interwoven. Cuticle of repent hyphae, bearing tufts of brown, slightly incrusted hyphae (forming scales). Clamp connections (not found; material unfit). Caulocystidia 40-80 x 6-7 μ , cylindric to clavate.

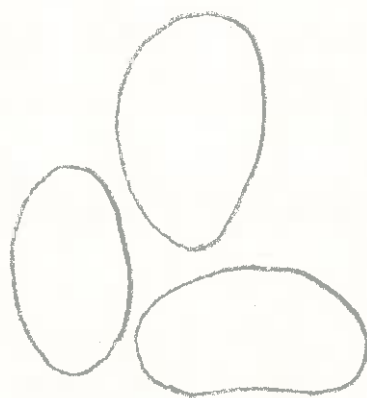
The material appears to be in a state of deterioration, and is not in good condition for study.

Pholota (Agaricus) vinaceella (Pk.)

Type



Ch - x 1000



Spores - x 4000



Caulo - x 1000

Tenn-14106

Pholista
GYMNOPILUS FIBRILLOSIPES (Murrill) *comb. nov.*

Pileus caespitose, 2-6 cm broad, viscid, convex to conic or campanulate, then umbonate, at first "Kaiser brown", then "tawny", or "cinnamon rufous", "mars orange" to "Sanford's brown", disc "burnt sienna", viscid, margin even, incurved and appendiculate, glabrous except for evanescent veil-remnants. Context "light ochraceous salmon" to pale yellow, medium on disc, thin on margin; odor and taste mild.

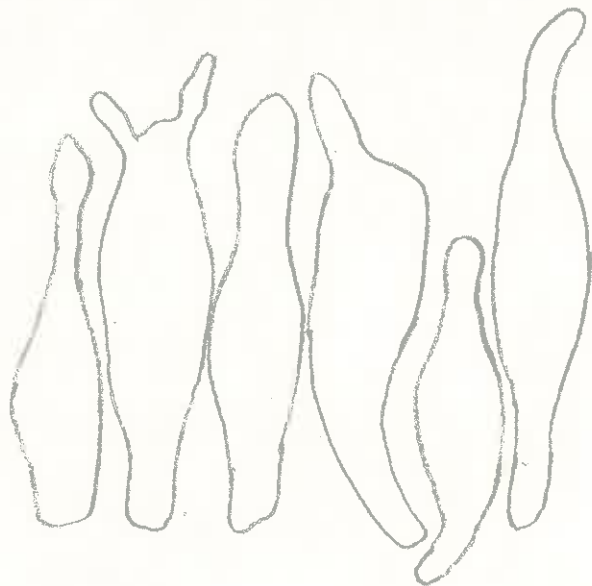
Lamellae adnate to adnexed or emarginate, "straw yellow" to "Naples yellow", finally "snuff brown", broad, ventricose, close, or crowded, edges at first fimbriate, finally even.

Stipe 4-8 cm long, 2-8 mm thick, apex pallid or yellow, dark or dingy-olive below, fibrillose, moist, stuffed, then hollow, often compressed, narrowed below. Veil copious, webby, pale yellow with some fibrils "mars orange", appendiculate, leaving a fugaceous, apical ring.

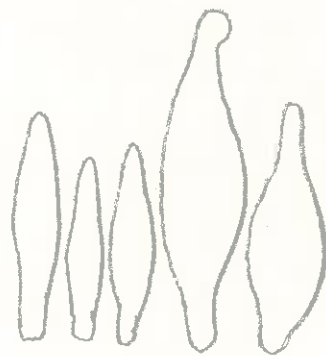
Spores 6-8.5 x 3.5-4.5 μ , ellipsoid in face view, slightly inequilateral in profile, smooth, no germ-pore evident. Basidia 23-27 x 5-6 μ , 4-spored. Pleurocystidia 45-88 x (5)9-15 μ , ventricose or subfusoid; cheilocystidia 31-60 x 5-13 μ , subfusoid to ventricose. Gill trama a broad mediostrate, hyphae subparallel, 5-9 μ broad, flanked by a narrow gelatinous subhymenium. Pileus trama radial. Cuticle a broad gelatinous zone, hyphae slender and nearly colorless, resting on a thick hypodermium of brown, sometimes incrusted hyphae. Clamp connections present. Caulocystidia 36-54 x 8-12 μ , fusoid, clavate, or ventricose, few. Pileus and gill trama pale yellowish in KOH; reddish brown in Melzer's reagent.

Gymnopilus fibrillocipes Murr.

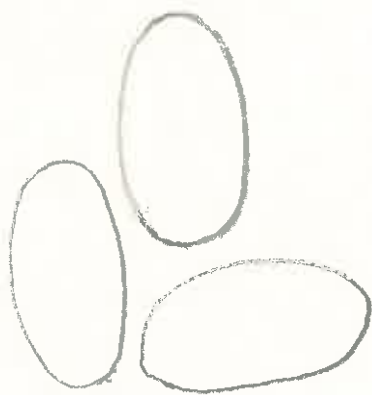
Tenn - 14106



Pl - x 1000



Ch - x 1000



Spores - x 4000

Tenn-20755

Pholiota

var. fibrillosipes

~~CYNOPILUS~~ FIBRILLOSIPES Murr. ^

PHOTO

On sawdust pile, Claxton's School, Dec. 28, 1952

Pileus 2-4 cm broad, viscid, glabrous, convex to conic or campanulate (then umbonate), "Kaiser brown" (young), "mars orange" to "Sanford's brown," disc "burnt sienna," margin even, incurved and appendiculate, veil-remnants finally disappearing. Context "light ochraceous salmon" to pale yellow, medium on disc, thin on margin; odor and taste mild.

Lamellae adnexed to emarginate, broad, ventricose, close, "straw yellow " to "Naples yellow," edges at first fimbriate, finally even.

Stipe 4-7 cm x 5-8 mm, apex yellow, dark or dingy-olive below, fibrillose, moist, stuffed, often compressed, narrowed below. Cortina copious, webby, pale yellow with some fibrils "mars orange," finally hanging from margin and leaving a fugaceous, apical ring.

Spores 6.5-8(9) x 4-4.5(5) μ , ellipsoidal, smooth. Pleurocystidia prominent, bottle-shaped or ventricose to fusoid, apex slender or slightly enlarged, 56-80 x 5-10(14) μ , some with brown pigment; cheilocystidia similar, few, 56-65 x 7-10 μ . Other characters as in Tenn-14106.

Tenn-9433

PHOLIOTA FLAMMANS

On log, Spruce Flats, Sevier Co., GSMNP, Sept. 6, 1936

Spores 3.5-5 x 2.5-3 μ . Numerous pleurocystidia and a few cheilocystidia with brown pigment. Otherwise as in Thiers-4270.

Tenn-13080

PHOLIOTA FLAMMANS

On log, Highlands, N.C., leg. A.J. Sharp, October 20, 1940

Spores 3.5-5.5 x 2.5-3 μ . Other characters as in Thiers-4270.

Thiers-4240

PHOLIOTA FLAMMANS (Fr.) Kummer

On log, Mackinaw City Hardwoods, August 20, 1956

Spores $3.5-5 \times 2.5-3 \mu$, ellipsoid in face view, slightly inequilateral in profile, smooth, thin-walled, germ pore not observed. Basidia $24-28 \times 4-6 \mu$, 4-spored. Pleurocystidia $25-35 \times 6-8 \mu$, ventricose to clavate, apices rounded, or more rarely sub-mucronate. (Chrysocystidia) - a few with brown pigment; cheilocystidia $25-35 \times 4-7(10) \mu$, subcylindric, clavate, or ventricose, apices more or less rounded. Gill trama subparallel, hyphae $4-7 \mu$ broad. Pileus trama of radially subparallel hyphae (appearing pseudoparenchymatous in tangential sections). Cuticle of colorless hyphae, $3-5 \mu$ broad. Clamp connections present on epicuticular hyphae and on hyphae comprising the scales. Scales on stipe and cap composed of colorless hyphae, $2-5 \mu$ broad. Caulocystidia none. Pileus and gill trama yellowish brown in KOH; more or less brownish or pale in Melzer's reagent. In KOH, a yellowish pigment is dissolved.

Sometimes the subhymenium and the cuticle appear somewhat gelatinous!

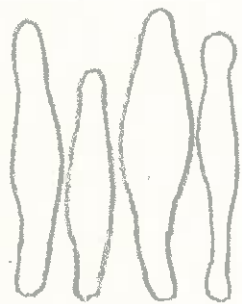
Tenn-16457

PHOLIOTA FLAMMANS (Fr.) Kummer

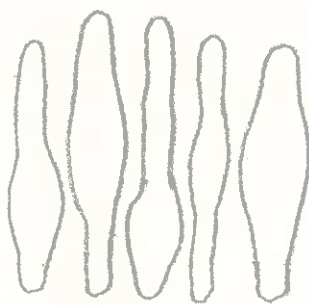
On pine log, Highlands, N.C., Sept. 2, 1944

Spores 3-5 x 2.5-3 μ . Pleurocystidia 30-38 x 5-11 μ ,
ventricose, often more or less buried, and then not projecting.
Cheilocystidia 32-38 x 5-9 μ , similar. Other characters as in
Thiers-4270.

Tholiota flammans (Fr.) Kummer
Tena - 16457



~~st~~ Pl. - x 1000



Ch - x 1000

Tenn-9641

PHOLIOTA *flavescens* sp. nov.

On soil, Oliver Springs, Oct. 25, 1936

(Same as Tenn-13094)

(Near ornatula Murr.)

Pileus 8-20 mm broad, convex, expanding-convex or nearly plane, viscid, at first whitish then ochraceous buff to "old gold," appressed-fibrillose, fibrils brown, margin even.

Lamellae adnexed or subdecurrent, rather broad, close, pale yellow, then brownish.

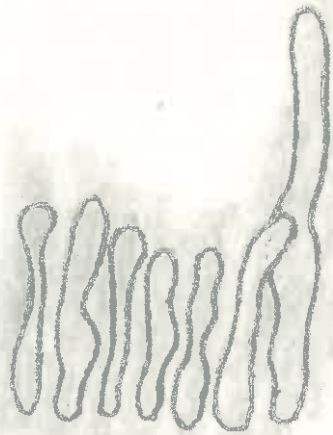
Stipe 2-3 cm x 2.5-4 mm, concolorous, fibrillose, equal. Veil arachnoid, leaving a slight fibrillose ring.

Spores 5.5-7 x 3.5-4 μ , ellipsoid or subvoid in face view, slightly inequilateral in profile, smooth, germ-pore minute. Basidia 23-27 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 22-56 x 4-7 μ , clavate or ventricose. Gill trama a mediostrate, hyphae ^{subparallel,} 4-9 μ broad, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone, hyphae more or less brownish, rarely faintly incrustated. Caulocystidia as terminal elements of hyphae, clavate to irregular, 36-54 x 5-9 μ , Pileus and gill trama pallid to pale yellowish in KOH; reddish brown in Melzer's reagent.

This is not P. angustipes as I originally determined it. The colors are wrong, and I found no pleurocystidia.

Pholiota flavescens

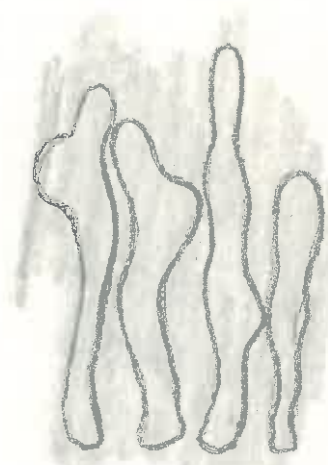
Term - 9641



Ch - x 1000



Spores - x 4000



Caulo - x 1000

Tenn-13094

PHOLIOTA

flavescens sp. nov.

Type

On soil, near chips and sawdust, Gatlinburg, Nov. 8, 1942

(Same as Tenn-9641)

Pileus 2-4 cm broad, convex, viscid, whitish when young, becoming "old gold" to "olive ochre," paler on margin, densely fibrillose, margin even. Context thin, thick on disc, white; odor and taste mild.

Lamellae adnexed to sinuate, pale yellow when young, finally "clay color" or darker, close, medium broad, edges even.

Stipe 3-4 cm x 4-8 mm, white above, dingy downward, fibrillose, fibrils often forming scales below, dry, solid, Veil fibrillose, white, conspicuous, leaving a slight fugacious ring.

Spores "Dresden brown" or "snuff brown" in mass, 5.5-7.5 x 3.5-4 μ , ellipsoid in face view, inequilateral in profile, smooth, germ-pore minute. Basidia 24-28 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 27-33 x 4-5 μ , ventricose to subclavate, rare. Gill trama a mediostrate, hyphae subparallel to slightly interwoven, 4-9 μ broad. Subhymenium gelatinous. Pileus trama radial. Cuticle a gelatinous zone.

Smith (January 1943) named it P. angustipes, saying this is as close as he could come to it. But it is not that species: in P. angustipes the pileus is brown.

Tenn-25143

PHOLIOTA FLAVIDA (Fr.) Singer

Near Hötting, Tyrol, Austria, M.Moser, Nov.13,1948, leg.&det.Moser

Spores 6-7.5 x 3.5-4 μ , ellipsoid to subovoid in face view, smooth, no germ-pore. Basidia 24-28 x 5-6 μ , 4-spored. Pleurocystidia (a) colorless: 48-72 x 8-10 μ , ventricose; (b) brown, 50-52 x 6-12 μ , ventricose or clavate-capitate, scattered; cheilocystidia 26-48 x 5-10 μ , ventricose to subfusoid. Gill trama a mediostrate, hyphae subparallel, 5-8 μ broad, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone, resting on a brown hypodermium, hyphae more or less incrustated; some brown, incrustated hyphae resting on the surface of the gelatinous zone (veil?). Caulocystidia none. Clamp connections present, small. Pileus and gill trama yellowish brown in KOH; reddish brown in Melzer's reagent.

Pholista flavida (Achff. ex Fr.) Finger.

Tenn - 25143 (from Moser, Austria)

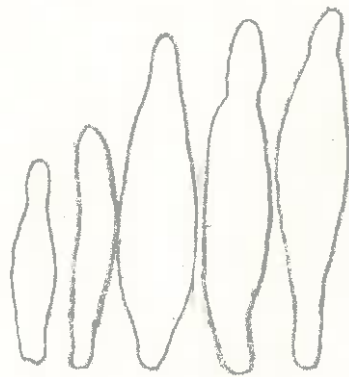


colorless

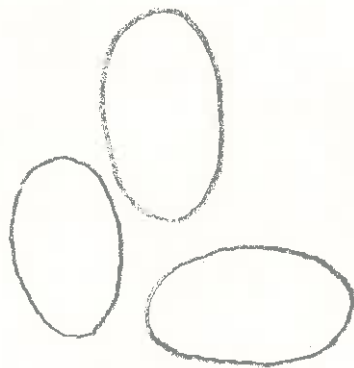
Ph - x 1000



brown



Ch - x 1000



Spores - x 4000

PHOLIOTA aff. flavopallida Sm. & Hes.

(In the specimen box from Albany, Peck Herb., labelled Agaricus (Hebeloma) glutinosus, I found that some of the basidiocarps obviously belong to the genus Pholiota, and not Hebeloma. I have separated the two taxa into two packets with labels.) Leg. Conklingville, N.Y.

Notes by Hesler

Spores 5.5-6 x 3.5-4.5(5) μ , ellipsoid, scarcely inequilateral, smooth, germ pore scarcely distinguishable, pale yellowish brown in 2% KOH. Pleurocystidia 38-55 x (7)10-12(18) μ , ventricose, usually with a stalk and a neck, wall moderately thin; cheilocystidia similar but slightly smaller on the average. Pileus cuticle an ixocutis. Hypodermium hyphoid. Subhymenium a gelatinous zone, 16-23 μ thick, distinct. Stipe cuticle of dry, repent hyphae. Caulocystidia similar to pleurocystidia or cylindric-clavate, 48-90 x 6-10 μ .

Since the collection is mixed, it is hardly possible to be certain which lot Peck's description of macrocharacters applies to.

The above Pholiota apparently collected at (or near) Conklingville, N.Y., Sept., by Peck; or there is the possibility that the mixing of taxa collections occurred in the laboratory.

Cf. P. lenta.

PHOLIOTA aff. flavopallida Sm. & Hes.

ex-Herb. Peck, Albany, N.Y., leg-det as Hebeloma glutinosum Fr., Sept.,
from North Elba, N.Y.

Notes by Hesler

Spores 5.5-7(7.5) x 3.5-4(4.5) μ , slightly to obscurely reniform in profile, ellipsoid-ovoid in face view, smooth, germ pore obscure, yellowish in 2% KOH. Pleurocystidia 34-53 x 7-15 μ , ventricose, sometimes slightly capitate, conspicuous; cheilocystidia similar, smaller, 27-48 x 6-14 μ . Pileus cuticle an ixocutis. Hypodermium hyphoid. Stipe cuticle dry, of repent hyphae. Caulocystidia not found.

This is close to Pholiota flavopallida Sm. & Hes. It also suggests relationship to P. lenta, but is closer to P. flavopallida.

In another collection by Peck, labelled by him as Hebeloma glutinosum, from Conklingville, N.Y., I found the collection to be mixed (both Pholiota and Hebeloma present). In the above collection, all the basidiocarps belong to Pholiota, near flavopallida, and none belonged to Hebeloma.

fruesiana
PHOLIOTA ~~CARBONARIA~~ (Fr.) Sing.

Agaricus carbonarius Fr., Obs. Myc. 2:33. 1818.

Flammula carbonaria Qué!., Champ. Jura Vosg., p. 232. 1872.

Gymnopilus carbonarius (Fr.) Murr., Mycologia 4:256. 1912.

Pholiota carbonaria (Fr.) Sing.

Pileus 1-3 cm. broad, convex, expanding convex, not hygrophanous, viscid, pellicle separable nearly to disk, glabrous, "pecan brown" to "mikado brown," margin even. Flesh thin, pliant or toughish, whitish; odor and taste mild. Lamellae adnate to subdecurrent, at times adnexed, crowded, medium broad, pallid or yellowish when young, then "pinkish buff," finally "snuff brown," sometimes with brown spots, edges serrulate or at times even. Stipe 2-6 cm. x 2-4 mm., pallid, flexuous, dingy, scattered-fibrillose or fibrillose-reticulated, at times becoming fibrillose-scaly, not viscid, solid then hollow, equal. Veil ~~none~~ ^{evanescent}, whitish or pale yellow.

Spores ^{6.5-7.5} ~~6-8~~ x ^{4.5} ~~3.5-5~~ μ , smooth, ellipsoidal, ends rounded, in mass: "snuff brown." Pleurocystidia abundant, ventricose or bottle-shaped, ^{the apices of some with a wrinkled mass,} 40-60 x 6-13 μ ; cheilocystidia clustered, similar or fusiform, 24-32 x 7-10 μ .

Habitat and Distribution. - Gregarious to subcespitose, on charred wood, burned-over soil, saw-dust, Tennessee and Florida, November-April.

Observations. - Smith has described P. carbonaria (Myc. 36:253. 1944). Is this valid? Very close to Helvella

Murr.

40039

PHOLIOTA FULVODISCA Sm. & Hes.

On rotting pine log, Norris Dam, October 22, 1975.

Pileus 2-5 cm broad, plano-convex, then plane, viscid, near "deep colonial buff", disc tinged "cinnamon", surface virgate to rivulose, margin even. Context pallid yellowish; odor and taste mild (or taste at length with a hint of bitterness).

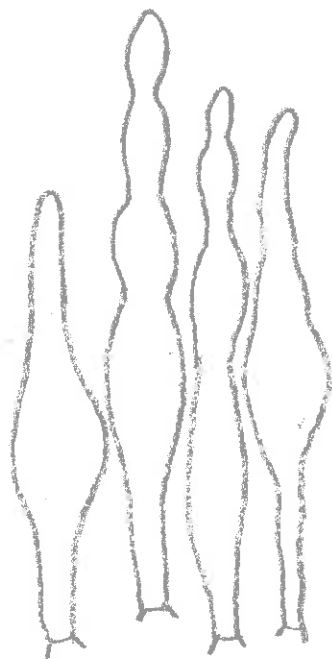
Lamellae adnate, pallid then yellowish, finally tinged brownish (from spores), finally slightly spotted or stained brown, close, medium broad, lamellulae of 3-4 ranks, numerous.

Stipe 3-7 cm long, 2.5-5 mm thick, concolorous, dingy brown below, with scattered brownish fibrils, hollow, equal, curved (from attachment under or on side of log). Veil remnants as fibril-aggregates on pileus margin; no annulus.

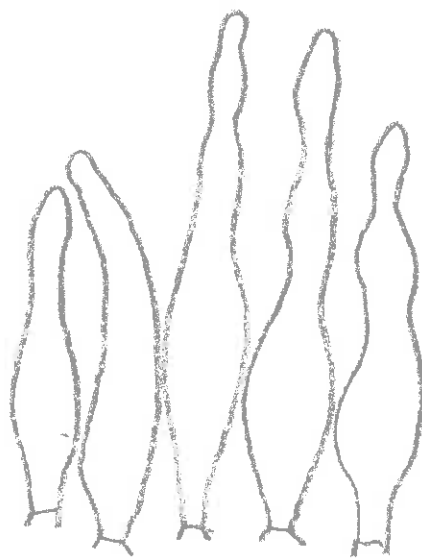
Spores in deposit: "snuff brown", 6-7(7.5) x 3.5-4.5(5) μ , ellipsoid, no pore observed. Pleurocystidia 56-78 x 8-12 μ , ventricose, with a neck and stalk, at times slightly capitate, more or less flexuous, wall rather thin; cheilocystidia 40-68 x 9-11 μ , similar or slightly more variable. Gill trama subparallel. Subhymenium a gelatinous zone. Pileus cuticle an ixocutis.

Type from Idaho; hitherto not reported from the East or Southeast.

Pholiota fulvrodiscalis Sm. + Hes.
Tenn - 40039



Pl x 1000



Ch x 1000

FLAMMULA FUSA (Batsch) Gill.

Leg. M.E. Hard, Chillicothe, Ohio, May 30, 1908. Borrowed
from Albany

One basidiocarp. Pileus dark brown. Gills very narrow.
Stipe fusiform toward the base. No spores found. Fruiting body
very hard, and no sections could be made.

Galerina

~~PHOLIOTA~~ PURCATA Overholts

Type

Borrowed from N.Y. Bot. Garden, type coll. F.
New York City, Nov. 3, 1903

Drawings and a
copy of notes sent
to Alex Smith
Jan 6 - '66.

Spores 7-10.5 x 4.5-6 μ , ellipsoid to subovoid in face view, only obscurely inequilateral in profile, rough-wrinkled, at times more or less "calyptrate," the apex often with a pale plage-like area and nipple, germ pore present. Basidia 24-28 x 5-6 μ , 2-4-spored. Pleurocystidia 52-70 x 6-13 μ , flask-shaped, neck slender, projecting; cheilocystidia 37-60 x 7-9 μ , similar. Gill trama interwoven. Subhymenium not distinct. Pileus ^{trama} loosely interwoven. Cuticle with a turf of colorless hyphae. Clamp connections not found. Caulocystidia 43-62 x 7-11 μ , similar to pleurocystidia, sparsely to densely scattered on stipe above the "ring."

This may be a Galerina (Jan. 6, 1966)

Later (Mch. 1967), it is included under Excluded Species in our Pholiota ^{monograph} ~~ms.~~, with the comment by Smith that it is a Galerina, + further that we withhold making the new combination until we can study fresh material.

Pholiota
Flammula fulviconica^a (Murrill) ^{comb. nov.}

Murrill's description (Proc. Fla. Acad. Sci. 7:120. 1945):

"Pileus conic, not fully expanding, solitary, about 3 cm. broad; surface smooth, glabrous, fulvous on the disk, paler toward the margin, which is even, entire, incurved when dry; context thin, pallid, odorless, mild; lamellae adnate with decurrent tooth, inserted, broad, medium distant, entire, ferruginous at maturity; spores ovoid, smooth, pale-yellowish, about 7 x 4 μ ; cystidia none; stipe subequal, smooth, glabrous, pale-yellowish above, fulvous below, about 5 x 0.7 cm.

"Type collected by W. A. Murrill on the ground in beech woods near Santa Fé, Alachua Co., Fla., Dec. 13, 1939 (F 18110). Not known from elsewhere. On drying the center becomes a fulvous cone. Scattered over the sides of the gills are globose fulvous bodies 15 μ or more in diameter."

Pholiota granulosa (Fr.) Jm. + Nes. (see N.A. Species of *Pholiota*, pp. 380-2.)
 PHAEOMARASMIUS MURICATUS (Fr.) Sing.

Agar., p. 597. 1962

Agaricus muricatus Fr., Syst. Myc. 1: 244. 1821.

→ Dryophila muricata (Fr.) Quél., Enchir. Fung., p. 69. 1886.

Flammula granulosa Pk., in V. White, Bull. Torrey Bot. Club. 29: 561. 1902.

Gymnopilus granulosus (Pk.) Murr., North Amer. Flora 10: 203. 1917.

Naucoria muricata (Fr.) Kühner & Romagn., Flore Anal. Champ. Super., p. 242. 1953.

Pholiota muricata (Fr.) ~~Agaricus muricatus (Fr.) Kummer, Der Führer in die Pilzk., p. 83. 1871.~~
 Kummer, Der Führer in die Pilzk., p. 83. 1871.

Pileus 1-3.5 cm broad, hemispheric or convex to nearly plane, obtuse or depressed, golden brown or tawny-yellow when fresh, disc ferruginous, with dense, tawny-yellow fasciculate scales, at the center sometimes granulose-squarrose, dry, margin even, appendiculate. Context thin, yellowish; odor mild, taste none.

Lamellae adnate, or slightly sinuate, seceding, medium broad, rather close, at first yellow, then brown, ferruginous stained, edges sometimes white-crenate.

Stipe 2-4(7) cm long, 1.5-4(5) mm thick, yellowish to tawny, fibrillose to suberect scaly up to the ring, more or less glabrescent, stuffed, equal. Veil yellowish, forming an indistinct, fugacious annulus.

Spores 6.5-8.5 x 3.5-4.5 μ , ellipsoid in face view, bean-shaped in profile, smooth, thick-walled, germ-pore none, a callus

(or thin-spot) present in some. Basidia 22-26 x 5-6 μ , 4-spored. Pleurocystidia none; cheilocystidia 24-40 x 7-12 μ , clavate-capitate to subpyriform, more rarely ventricose, brownish. Gill trama subparallel, hyphae (3)5-10 μ broad. Pileus trama radial, and thus appearing cellular in tangential sections. Cuticle bearing tufts of chains of brown, incrustated cells. Clamp connections present. Pileus and gill trama yellowish or yellowish brown in KOH; rusty brown in Melzer's.

HABIT, HABITAT, AND DISTRIBUTION - On logs and sawdust of hardwood (beech, elm, poplar), Maine, Vermont, Michigan, and Washington, May - September; also in Europe.

MATERIAL STUDIED - MAINE: Peck (type of Flammula granulosa Pk., on wood and old logs, leg. V. White, Bar Harbor, Aug.*8, 1901); MICHIGAN: Harding 80, 83, 88, 420 (MICH); Smith 15094, 25522, 36169, 36949, 36980, 37043, 37119, 41412, 41586, 41691, 41748, 42789; VERMONT: Shaffer 3129 (MICH); WASHINGTON: Smith 13252, 17351.

OBSERVATIONS - This species may be confused with Peck's Ph. erinaceellus, which is distinguished by its longer cheilocystidia. The two species are very closely related, and Ph. erinaceellus may prove to be a synonym of Ph. muricatus.

Tenn-9586

PHOLIOTA GRAVEOLENS (Pk.)

On hemlock log, Greenbrier, GSMNP, October 18, 1936

Spores 6-8 x 4-4.5 μ . Pleurocystidia most with a brown pigment, a few colorless; cheilocystidia colorless or pale brown. Otherwise as in Sm-68787.

Tenn-19650

PHOLIOTA GRAVEOLENS (Pk.)

Kodachrome

From R.M. Schiele, Gastonia, N.C., Dec. 27, 1962

Spores 7-8.5 x 4-4.5 μ , ellipsoid, smooth, double-walled, germ pore not evident. Pleurocystidia and cheilocystidia abundant, similar, bottle-shaped, ventricose, or more or less nodulose-constricted, many with a brown pigment, numerous and conspicuous, 48-70 x 9-12 μ . Cuticle an ixocutis, 120-160 μ thick.

In the absence of any notes, it goes best to F. graveolens. The veil is yellow, fibrillose. My 19650 agrees very well with Kauffman's Colorado collection (Sm-68787).

Tenn-20227

PHOLIOTA *graveolens* ~~SPUMOSA~~

PHOTO

On pine log (attached to underside of bark), Knoxville, Nov. 25, 1951

Pileus 3-6 cm broad, convex, finally expanded-convex, pellicle slightly separable, viscid-glutinous, "olive-ochre" with a distinct greenish tint, disc "buckthorn brown," glabrous but rivulose except for veil-remnants on margin, even. Context yellow with a greenish tint, rather thick, abruptly thin on margin; odor slightly penetrating, of coal-tar, taste slight.

Lamellae rounded-adnate, soon emarginate with a decurrent tooth, "straw yellow" at first, finally yellowish with a brownish tint, near "ochraceous tawny," edges slightly fimbriate at first, close, broad, thin.

Stipe compressed (from growth between wood and bark), 5-8 cm x 6-12 mm, yellowish-green above, smoky to dingy brownish below, shining, appressed-fibrillose, rimose, moist, hollow, base white-strigose. Cortina yellow, evanescent.

Spores 5.5-8.5 x 3.5-4.5 μ , smooth, ellipsoid to ovoid in face view, color in mass: "sandal brown" to cinnamon brown." Pleurocystidia rather numerous, prominent, 32-56 x 5-7(9) μ , bottle-shaped; cheilocystidia few, similar, somewhat smaller.

Other characters as in Tenn-19475.

Zeller-5673 PHOLIOTA GRAVEOLENS (Pk.) comb. nov.

On nonifer wood, Tillamook County, Oregon, leg. & det. J.E.Lange
& S.M.Zeller as Flammula flavida Fr.*

(Collection borrowed, studied Dec. 22, 1965.)

Spores 7-8.5(10) x 4-4.5 μ , ellipsoid to subovoid, inequilateral, smooth, germ-pore minute. Basidia 18-23 x 5-6 μ , 2-4-spored. Pleurocystidia 26-52 x 5-7 μ , ventricose-bottle-shaped, apparently shrunken; cheilocystidia 28-37 x 3-5 μ , slender-clavate or ventricose. Gill trama subparallel, 2-4 μ broad. Subhymenium not distinctive. Pileus trama more or less radial. Cuticle a gelatinous zone, resting on a brown hypodermium.

This is not flavida sensu Bresadola, who says it is not viscid; nor flavida sensu Moser, who gives the spores smaller (6-7.5 x 3.5-4 μ). I have a specimen from Moser - see my notes. It is near piceina but this species has larger cystidia.

* Reported in Mycologia 25:379. 1933, as F. flavida.

Zeller-5673 PHOLIOTA GRAVEOLENS (Pk.) comb. nov.

On gonifer wood, Tillamook County, Oregon, leg. & det. J.E.Lange
& S.M.Zeller as Flammula flavida Fr.

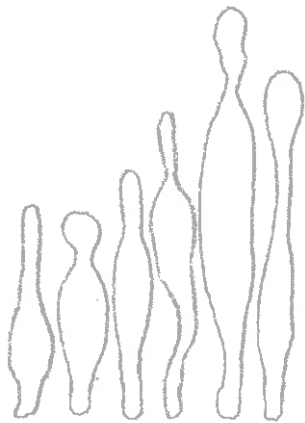
(Collection borrowed, studied Dec. 22, 1965.)

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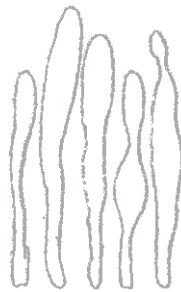
This is not flavida sensu Bresadola, who says it is not viscid; nor flavida sensu Moser, who gives the spores smaller (6-7.5 x 3.5-4 μ). I have a specimen from Moser - see my notes. It is near piceina but this species has larger cystidia.

P. graveolens (PK.)

Zeller-5673 (as *F. flavida*)



Pl. x 1000



Ch. x 1000

Tenn-22233

PHOLIOTA GREGARIIFORME (Murr.) *comb. n.* PHOTO

On soil, pine woods, Murray Co., Georgia, Nov. 27, 1955

Pileus 1.5-3.5 cm broad, convex, expanding, viscid, pellicle adnate, fibrillose especially along margin, "light buff" with tints or stains of pale orange-brown, margin even. Context medium thick, watery brown; odor mild, taste slightly bitter.

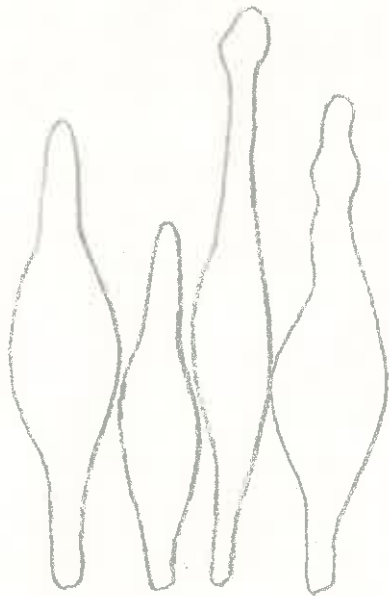
Lamellae sub-emarginate, pale olivaceous at first, becoming "buffy brown" to isabella color, "nearly close to subdistant, sub-triangular, broad behind, narrowed in front, edges faintly fimbriate.

Stipe 4-6 cm x 2-4 mm, dry, at first white then dingy brownish, fibrillose, tapering downward, tubular. Veil scanty, evanescent.

Spores (6)7-9 x (4)4.5-5.5 μ , ellipsoid to ovoid in face view, slightly inequilateral in profile, smooth, germ pore minute. Basidia 25-30 x 6-7 μ , 4-spored. Pleurocystidia 48-74 x 10-17 μ , flask-shaped, apices sometimes capped with an amorphous exudate; cheilocystidia 40-54 x 8-12 μ , similar. Gill trama a mediostrate, hyphae interwoven, 6-12 μ broad. Subhymenium gelatinous. Pileus trama interwoven. Cuticle a gelatinous zone, the hyphae, at times, may be only moderately gelatinous, brown to pale brown, some obscurely incrustated. Hypodermium rather indistinct. Clamp connections present. Caulocystidia (above ring) 37-60 x 8-15 μ , clavate, some colorless, others with a brown pigment. Pileus and gill trama yellowish to yellowish brown in KOH; brown in Melzer's reagent.

*Pholista gregarii*forme (Murr.)

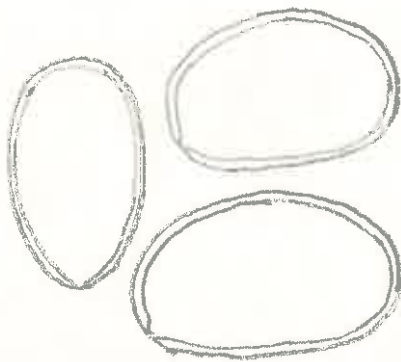
Tenn - 22233



Pl - x 1000



Ch - x 1000



Eggs - x 4000

Pholiota gregariforme

~~PLAMMULA~~ NO. 22233

Pileus 1.5-3.5 cm. broad, convex, expanding, viscid, pellicle adnate, fibrillose especially along margin, "light buff" with tints or stains of pale orange-brown, margin even. Flesh medium thick, watery brown; odor mild, taste slightly bitter. Lamellae sub-emarginate, pale olivaceous at first, becoming "buffy brown" to "isabella color," nearly close to subdistant, sub-triangular, broad behind, narrowed in front, edges faintly fimbriate. Stipe 4-6 cm. x 2-4 mm., dry, at first white then dingy brownish, fibrillose, tapering downward, tubular. Cortina scanty, evanescent.

Spores 7-9 x 4.5-6 μ , ellipsoid, smooth, color in mass: "buffy brown." Pleurocystidia 64-78 x 12-15 μ (at base), subulate (enlarged below, tapering above), scattered; cheilocystidia bottle-shaped, ^{or similar to pleurocystidia,} numerous, 34-40 x 12-15 μ .

Habitat and Distribution. - On soil and humus in pine woods, Georgia, November; *Alabama, Dec.*

Tenn-22565

PHOLIOTA GREGARIIFORME (Murr.)

PHOTO

On soil, in pine woods, near Cleveland, Tenn., Dec. 28, 1956

Pileus 1.5-3 cm broad, convex, expanding-convex to nearly plane or depressed, viscid, umbonate, "light buff," disc darker, appressed-fibrillose, becoming somewhat rimose, pellicle adnate, margin even, at first with veil-remnants. Context whitish, medium thick; odor mild, taste mild or faintly bitter.

Lamellae adnexed, rather broad, close, "olive buff," edges minutely fimbriate.

Stipe 4-6 cm x 3-5 mm, dingy buff, shining, scattered-fibrillose, dry, stuffed then hollow, tapering downward slightly. Veil pallid, evanescent.

Spores 7-9 x 4.5-5.5 μ , in mass "buffy brown." Pleurocystidia 52-76 x 10-14 (base) x 6-8 μ (apex), bottle-shaped, with a long neck; cheilocystidia similar, usually smaller. Otherwise as in Tenn-22233.

All fresh parts yellowish green in 2% KOH.

NAUCORIA HARPERI Murr.

North Amer. Flora 10:180. 1917

Pholiota harperi (Murr.) comb. nov.

Type

Pileus 2-2.5 cm broad convex to plane, hygrophanous, uniformly leather-colored, glabrous, margin striate, not inflexed. Context very thin.

Lamellae adnate, ferruginous, edges concolorous, ventricose, not very broad, distant, entire.

Stipe 3-4 cm broad, 2-3 mm thick, concolorous, glabrous above, white-floccose below, equal or tapering upward.

Notes by Hesler

Spores 6-7.5(8) x 4.5-5 μ , obscurely inequilateral in profile, ellipsoid in face view, wall rather thin, smooth, germ pore present, truncate in many or most, pale yellowish brown in H₂O, distinctly darker brown in 2% KOH, medium yellowish brown in Melzer's reagent. Pleurocystidia none; cheilocystidia 24-28 x 2-4 μ , scattered, absent in some sections, slender hair-like, obscurely ventricose or clavate-filamentous. Gill trama of subparallel hyphae, 4-8 μ broad. Pileus cuticle of dry, repent hyphae. Pileocystidia none. Stipe cuticle of dry, repent hyphae, with a few epicuticular hyphae; no caulocystidia. Clamp connections present, rather inconspicuous on stipe

epicuticular hyphae; caulocystidia none.

Type (Harper No. 64) collected on lawn, Berkeley, California, March 8, 1911.

The smooth, rather small, truncate spores indicate one of the "primitive" Pholiota species, which seems not to be in our N. A. Species of Pholiota. It is apparently a member of the Subg. Hygrotrama.

Singer (1962: 558)
states that perhaps Naucoria harperi Murr.
belongs to Kuehneromyces.

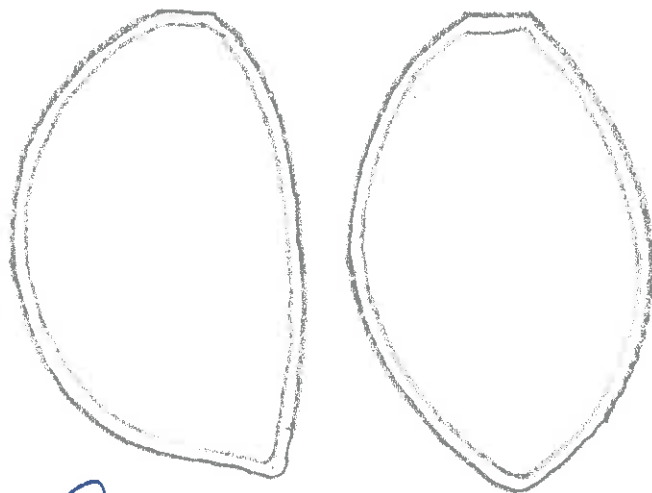
Naucora harperi Murr.

Type

[*Pholiota harperi* (Murr.) comb. nov.]



Ch x 1000



Profile

Face

Spores x 8000

Phellota (vernalis?)
FLAMMULA HILLII Murr.

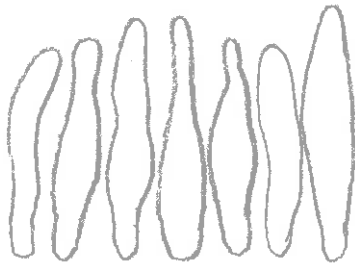
New Westminster, British Columbia, coll. by Albert I. Hill,
No. 7, April 23, 1905.

TYPE

Spores 6-7.5(8) x 3.5-4 μ , ellipsoid, more or less inequilateral, often to rarely ovoid, smooth, truncate, germ pore present (not always conspicuous). Pleurocystidia only as cheilocystidia which extend up the sides a short distance; cheilocystidia numerous, conspicuous, 26-34 x 4-7 μ , filamentous-cylindric, flask-shaped with a neck, apices sometimes capitate or subcapitate. Gill trama subparallel, hyphae 6-10 μ broad. Pileus trama radial. Cuticle of repent hyphae.

Gymnopilus killii Murr.

Type (= Kuehneromyces vernalis)



Ch - $\times 1000$

NAUCORIA HUMIDICOLA Murr.

North Amer. Flora 10: 174. 1917

Naematoloma humidicola (Murr.) Smith, Mycologia 40:693. 1948.

Pholiota humidicola (Murr.) Sm. & Hes., N. A. Species of
Pholiota, p. 142. 1968.

(See descriptions in both these above citations.)

Type

This has been transferred to Pholiota (see above citation). I seem to have no notes on Type, and assume that I did not see it. Dr. Smith evidently studied it-- as well as his collections from Idaho, Washington, and Oregon.

The material of the Type is all but exhausted. I was able to find spores and basidia on two gill-fragments.

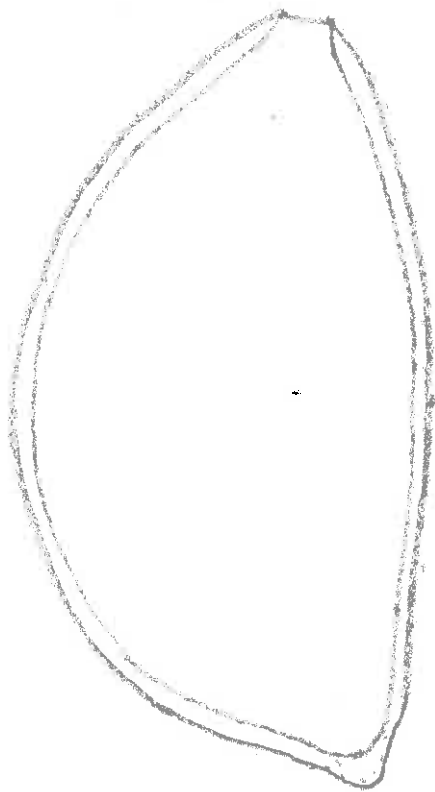
Spores 9.5-12.5(14) x 5.5-7(8) μ , ellipsoid, smooth, germ pore present, usually rather obscure, and some also obscurely truncate. Basidia 23-34 x 6-7 μ , 2-4-spored. Material not available for sectioning.

Type (Murrill-1019) on wet, mossy soil, Lake Placid, Adirondack Mts., New York, October 3-14, 1912.

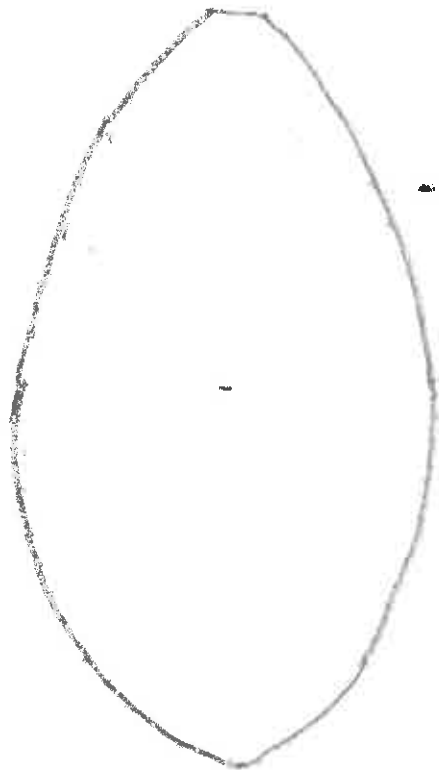
Naucoria humidicola Murr.

Type

[= *Pholista humidicola* (Murr.) Sm. + He.]



Profile



Face

Spars x 8000

PHOLIOTA INAURATA (W. G. Smith) Moser

Under Salix, Bookham Common, Surrey, England, P. D. Orton,
Oct. 15, 1955 (borrowed from Kew, August 1965)

Spores 5.5-7 x 3-3.5 μ , ellipsoid, medium brown in 2% KOH, slightly inequilateral, smooth, germ-pore present. Basidia 22-25 x 4-5 μ , 4-spored. Pleurocystidia as chrysocystidia, 25-42 x 6-10 μ , subfusoid to subclavate, amorphous content, buried; cheilocystidia 25-45 x 3-7 μ , filamentous, often sub-ventricose, conspicuous. Gill trama a mediostrate, hyphae subparallel, 6-14 μ broad, frequently septate, flanked by a gelatinous subhymenium. Pileus trama loosely interwoven. Cuticle a narrow, gelatinous zone, resting on an hypodermium of brown, incrustated, radially-disposed hyphae. Clamps present. Caulocystidia similar to cheilocystidia, scattered to gregarious.

PHOLIOTA INAURATA (W. G. Smith) Moser

Under Salix, Bookham Common, Surrey, England, P. D. Orton,
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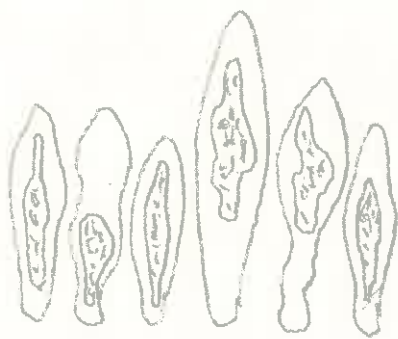
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Pholiota inaurata (W.G. Smith) Murr

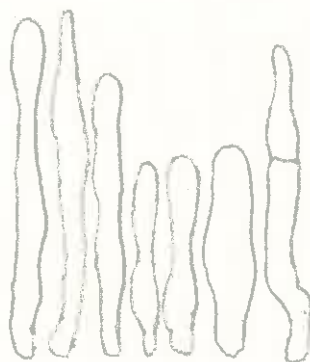
under *Salix*, Brookham Common,

Surry, England, leg. P. D. Orlon

Oct 15, 1955



Sp (chryso) - $\times 1000$



Bas - $\times 1000$

See: P. flammans (Fr.) Kummer
kauffmaniana Smith

Tenn-21001

PHOLIOTA ~~flammans~~ ~~Fr.~~ Kummer

PHOTO

On hemlock stump, Grassy Patch, GSMNP, Sept. 10, 1953

Pileus 2-4 cm, convex, expanding, viscid, pale orange, darker orange when rubbed, with squarrose, yellow scales, margin strongly appendiculate with yellow fibrils until maturity. Context thick on disc, thin elsewhere, yellow; odor slight, taste slightly bitter.

Lamellae adnate, at first bright orange yellow, then yellowish tawny, brown when bruised, crowded, narrow, thin, edge entire or rough.

Stipe 3-5 cm x 3-7 mm, yellow, decorated with squarrose, yellow scales, up to annulus, equal, solid, dry. Veil superior, fibrillose-floccose, fugacious.

Spores 3.5-5 x 2-3 μ , ellipsoid in face view, slightly inequilateral in profile, smooth, nearly colorless under microscope; color in mass: pale brown. ^{subhymanium gelatinous.} Pleurocystidia 24-36 x 6-8 μ , ventricose; cheilocystidia 20-32 x 6-8 μ , cylindrical to subventricose. Gill trama parallel or subparallel. Cuticle ~~appearing somewhat~~ gelatinous, resting on a brown hypodermium.

Tenn-23386

PHOLIOTA ~~KAUFFMANIANA~~ Smith

flammanus (Fr.) Kummer

On spruce log, Clingmans Dome, GSMNP, Sept. 4, 1959

Spores 3.3-5.2 x 2.3-3 μ , ellipsoid, smooth. Gill trama subparallel; subhymenium gelatinous. Pleurocystidia 26-42 x 8-10 μ , clavate to ventricose, some brown; cheilocystidia 25-28 x 6-8 μ , similar in shape and color. Cuticle gelatinous.

28186

PHOLIOTA ~~HAUFFMANNIANA~~

flammaria (Fr.) Kummer

PHOTO

On conifer log, Collins Gap, GSNP, Ron Petersen, Sept. 14, 1965

Pileus 3-4.5 cm broad, convex-campanulate, more or less umbonate, viscid, "ochraceous orange", with more or less concentric rows of yellow (near "cadmium yellow"), fibrillose, fasciculose scales, those toward margin more persistent. Context yellow; odor slight, taste slightly bitter.

Lamellae abruptly emarginate, at first "picric yellow", then darker yellow, becoming brown-spotted, close, broad behind, tapering in front, fimbriate or denticulate.

Stipe 3-6 cm long, 4-6 mm thick, base slightly clavate, yellow, with numerous more or less squarrose, brownish-yellow scales, firm, hollow.

Spores 3.8-4.7 x 2.4-2.8 μ , ellipsoid, slightly inequilateral, smooth. Pleurocystidia 22-34 x 6-10 μ , clavate, usually mucronate or subcapitate, brown; cheilocystidia 20-32 x 4-6 μ , fusoid-ventricose. Gill trama subparallel, hyphae 4-10 μ broad. Subhymenium gelatinous. Pileus trama radial-interwoven. Cuticle gelatinous. Hypodermium reddish brown in KOH.

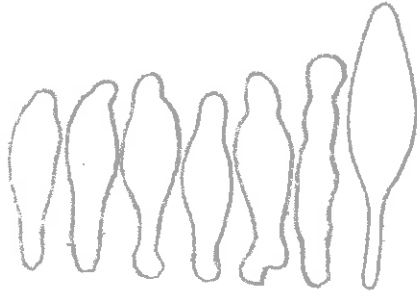
Pholiota tuberculosa (Schaeff. ex Fr.) Gill.

E.T. Harper Collection = *P. Kauffmaniana*

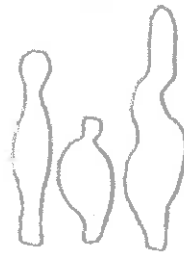
from Sailors Encampment, Mich.

Sept 14, 1898

(Chicago Nat. Hist. Museum)



Pl. - x 1000



Ch - x 1000

Tenn-10903

lenta (Fr) Sing
PHOLIOTA ~~GUMMOSA~~ (Lasch) Sing.

On humus, in decid. woods, Chimneys, GSMNP, det. AHS, Oct.10,1937

Pileus 4-9 cm broad, convex then expanded, glutinous (gluten watery-white, heavy), glabrous, "drab-gray" to "light-drab," when older darkening to "avellaneous," margin even. Context pallid, thick on disk, thin on margin; odor none or mild; taste mild.

Lamellae white at first, then pallid gray, finally darkening to "isabella color," close, broad, at first adnexed, then emarginate and uncinata, edges serrulate, spotted dark brown when old.

Stipe 4-6 cm x 5-12 mm, equal or sub-bulbous, dry, fibrillose, base pale brown to reddish brown, apex paler (nearly white when young), fistulose.

Spores 5-7 x 3.2-4 μ , ellipsoid, inequilateral, smooth, in mass "drab" (or with an olive-brown tint). Pleurocystidia 40-60 x 8-12 μ , ventricose; cheilocystidia 30-45 x 7-10 μ , similar, or some subfusoid.

Gill trama a mediostrate, flanked by a gelatinous subhymenium. Cuticle a gelatinous zone.

Otherwise as in Sm-34097, which may be lenta. According to Fries, Lange, et al, in lenta the young gills are white; in gummosa they are yellowish.

Tenn-14010

PHOLIOTA LENTA

On humus and debris, Abies woods, Clingmans Dome, Sept. 7, 1941

Spores 5-7 x 3.5-4 μ . Other characters as in Tenn-19271.

Tenn-17197

PHOLIOTA LENTA (Fr.) Sing.

In humus, beech woods, Indian Gap, GSMNP, Sept. 30, 1945

Pileus 3-5 cm broad, convex, broadly umbonate, glutinous-viscid, pinkish gray then smoky gray (not at all matched), glabrous, margin even, with white veil-remnants. Context firm, white, thick on disc, thin on margin; odor and taste mild.

Lamellae adnate-decurrent, becoming emarginate-uncinate, close, medium broad, whitish, finally grayish-tawny (not matched), edges fimbriate.

Stipe 3-4.5 cm x 4-6 mm, dingy, not viscid, base curved, scattered fibrillose, solid. Veil white, cortinate, leaving evanescent annulus, and remnants on pileus near margin. Spores ovoid-ellipsoidal, 5.5-7 x 3.5-4 μ , smooth, pale brown (under microscope), spore print failed. Pleurocystidia numerous, ventricose, 54-65 x 11-13 μ ; cheilocystidia similar, shorter.

Otherwise as in Tenn-19271.

Kauffman (1926: 28) says

F. lenta = Helvona glutinosa

Tenn-17231

PHOLIOTA LENTA (Fr.) Sing.

In humus, deciduous woods, Cades Cove, Oct. 28, 1945

Pileus 3-5 cm broad, convex hemispheric, finally expanded, somewhat umbonate, viscid, "pinkish buff" when young, "pale ochraceous buff" and disc "cinnamon buff" when mature, innately fibrillose, with conspicuous white scattered fibrillose-squamulose scales on marginal half, margin even, at first appendiculate from veil. Context white, firm, thick on disc, thin on margin; odor and taste mild.

Lamellae adnate-decurrent, finally emarginate, at first ivory-white, finally brown (not matched), crowded, medium broad, edge fimbriate.

Stipe 4-7 cm x 6-8 mm, dry, fibrillose-striate and lacerate-fibrillose, apex white-mealy, flexuous or nearly strict, equal or slightly sub-bulbous, solid or cavernous, humus matted about base. Veil white, webby, copious, leaving an evanescent superior annulus.

Spores 5.5-7 x 3.5-4 μ , smooth, ellipsoidal, ends rounded, "cinnamon brown" in mass. Pleurocystidia numerous, ventricose, colorless, 43-72 x 10-12 μ , apices rounded or acute, cheilocystidia similar, smaller. Other characters as in Tenn-19271.

Smith says (letter Nov. 9, 1945): "Fungi like this are one reason why I fail to see any real generic difference between *Pholiota* and *Flammula*."

Tenn-19271

PHOLIOTA LENTA (Fr.) Singer

PHOTO

On soil, under birch, Indian Gap, August 31, 1949

Pileus 3-6 cm broad, convex, glutinous, basically white, becoming pinkish gray, then smoky (color not matched), streaked and spotted by amber-colored gluten, glabrous to appressed-fibrillose, subrimose, even, appendiculate from remnants of veil. Context white, thick on disc, thin on margin; odor and taste mild.

Lamellae adnate with a decurrent tooth, white at first, then "clay color," medium broad, abruptly narrowed in front, close, edges slightly rough to fimbriate.

Stipe 3-5 cm x 4-12 mm, white above, dingy brownish below, fibrillose, dry, sub-bulbous, base curved, spongy within. ♀

Spores 5-7 x 3.5-4 μ , ellipsoid or some subovoid in face view, inequilateral in profile, smooth, germ pore minute. Basidia 18-22 x 5-6 μ , 4-spored. Pleurocystidia 50-67 x 9-14 μ , flask-shaped, neck long, apex blunt or rounded; cheilocystidia 36-43 x 10-13 μ , similar. Gill trama a mediostrate, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone. Hypodermium of brown hyphae. Clamps present.

Tenn-19668

PHOLIOTA LENTA

On soil, under birch, Indian Gap, July 29, 1950

Spores 5-6.5 x 3.5-4 μ . Other characters as in Tenn-19271.

PHOLIOTA LIGNICOLA (Murr.) comb. nov.*

Galerula lignicola Murr., N. A. Flora 10: 165. 1917.

Type

Pileus gregarious, 2 cm broad, plane with a small conic umbo, dull-watery-isabelline, brown when dried, glabrous, margin striate.

Lamellae sinuate, fulvous, narrow, crowded, ~~edges~~ edges serrulate.

Stipe 3 cm long, 2 mm thick, lateritious, glabrous except the white-mycelioid base, subequal.

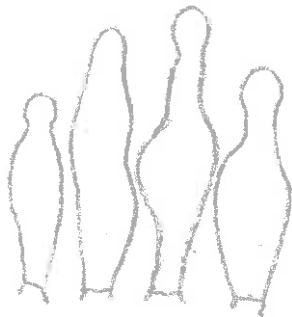
Notes by Hesler (Type)

Spores (6)7-9(10) x (3.5)4-5 μ , obscurely inequilateral in profile, ellipsoid in face view, wall 0.25 μ thick, smooth, truncate, brown in 2% KOH. Pleurocystidia none; cheilocystidia 25-38 x 7-10 μ , ventricose, often with a neck; occasionally the apex subcapitate. Gill trama nor subhymenium not gelatinous. Pileus cuticle of repent, dry hyphae. Stipe cuticle of repent hyphae, dry. Caulocystidia not found.

*Not to be confused with Agaricus lignicola Pk. which is really Pholiota vernalis (Pk.) Sm. & Hes.

Pholiota lignicola (Murr.) comb. nov.

[*Galerula* *lignicola* Murr.] - Type



Ch x 1000



Profile



Face

Spores x 8000

Tenn-9486

PHOLIOTA LUBRICA (Fr.) Singer

Log of Abies fraseri, Clingmans Dome (N.C.), Sept. 27, 1936

Spores (5.5)6-8 x 3.5-4 μ , some oblong-ellipsoid, others ellipsoid in face view, inequilateral to (some) bean-shaped, smooth, germ pore pinute. Pleurocystidia 38-83 x 9-17 μ , flask-shaped; cheilocystidia 33-52 x 7-12 μ , similar, or rarely cylindric-ventricose. Gill trama a mediostrate, hyphae subparallel, 6-12 μ broad, ^{flanked by a gelatinous subhymenium.} Pileus trama interwoven. Cuticle a gelatinous zone, hyphae brownish, often incrustated; hypodermium of brown, incrustated hyphae. Clamp connections present.

Tenn-10686

PHOLIOTA LUBRICA

At base of Spruce, near Clingmans Dome, June 27, 1937

Spores 5-7.5 x 3.2-4 μ . Other characters as in Tenn-9486.

Tenn-11738

PHOLIOTA LUBRICA

On Abies fraseri log, Clingmans Dome, September 18, 1938

Spores 5.5-7 x 3.5-4 μ . Other characters as in Tenn-9486.

Tenn-11742

PHOLIOTA LUBRICA

On Abies fraseri stump, top of Mt. LeConte, Sept. 17, 1938

Spores 5.5-7.5 x 3.5-4 μ . Other characters as in Tenn-9486.

Tenn-16377

PHOLIOTA LUBRICA

On mossy soil, Abies fraseri woods, Clingmans Dome, June 11, 1944

Pileus 1.5-3.5 cm broad, convex, orange-brownish, darker on disc, paler on margin, fibrillose, viscid, margin fibrillose. Context thin, white; odor and taste mild.

Lamellae emarginate-decurrent, crowded, flesh-brown (young), wood-brown (mature), not broad, edges fimbriate.

Stipe 4-7 cm x 4-7 mm, apex white, elsewhere more or less orange-tawny, stained, fibrillose-lacerate, with a tubule; annulus at extreme top, cortinate.

Spores dark-cinnamon in mass, 5.5-7.5 x 3.5-4 μ , ellipsoid in face view, inequilateral in profile, smooth, germ pore small. Pleurocystidia 45-60 x 11-14 μ , flask-shaped; cheilocystidia 38-46 x 9-11 μ , similar. Gill trama a mediostrate, flanked by a gelatinous subhymenium. Pileus trama interwoven. Cuticle a gelatinous zone, hyphae brown, some incrusted. Hypodermium of brown, more or less incrusted hyphae. Clamp connections present.

Tenn-25144

PHOLIOTA LUBRICA

On rotting alder, Tirol, Austria, leg. & det. M.Moser, Oct.4, 1953

Spores 5-7.5 x 3-4 μ . Other characters as in Tenn-9486.

- aurivella?
PHOLIOTA LUXURIANS (Fr.) Gill.

Coll. Whetstone, Oct. 1918, Minnesota; specimen in Harper collections, Chicago Nat. Hist. Museum, borrowed and studied Dec. 22, 1965.

Spores 7-10 x 4.5-5.5(7) μ , ellipsoid, ovoid, smooth, germ-pore present. Cuticle filamentous.

Material badly fragmented and very hard. Unsuitable for study.

Overholts suggests it is related to P. aeruginea, which has rough spores and is a Gymnopilus.

This Harper collection might be P. aurivella.